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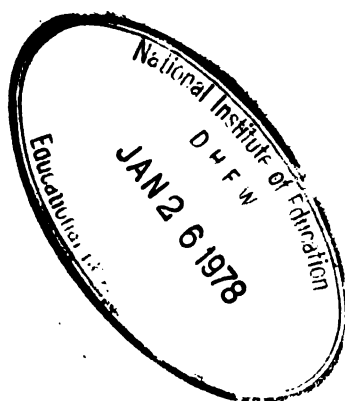
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[M. C. STEBBINS, Editor for January.]

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▼ *PROBLEMS AND THEIR SOLUTION.*

WE do not refer to "sums" in arithmetic and algebra, but to those broader and more troublesome problems, whose mysteries will not yield to the assault of the four fundamental rules, — problems that reach into the domain of every learned profession, and demand the best thought, the most careful and candid observation, that they all can give.

The last half-century has been remarkable for the encroachments that machinery has made upon the realm of muscular force. Every step of this advance has been accompanied with an increased subdivision of labor, tending more and more to make mechanics specialists, skilled in a single department of manual labor. This has made prominent a want, never felt very much before, of technical schools, with their varied courses of training, designed to afford the special facilities needed by such as are aiming to achieve excellence in practical chemistry, mining, engineering, architecture, etc. The same tendency is operative in our colleges, leading students to withdraw their energies from a general course of study to concentrate them upon one more specific.

This has already given great practical importance to the question, "What are the proper limitations to this specialty of education?" How far down in our educational system shall this special training begin? What degree and what kind of control

shall be exercised over pupils, to determine the course they shall pursue? Difficulties seem to be rapidly accumulating upon those schools that must do the work of preparation for the colleges and technical schools. Not only are our leading colleges and scientific schools raising their standards of admission, but are making them more diverse. In order that they may adequately meet these demands, high schools and academies seem to be shut up to this alternative, — either to impose upon those students who purpose to enter higher schools an amount of preparatory work that will secure their admission into any institution they may severally elect; or, on the other hand, to subdivide the classes after the manner of the university, and aim to give to each division — which not unfrequently would consist of a single pupil — the special preparation desired.

But, in seeming opposition to these views, we have the claim of Prof. W. P. Atkinson. "I would earnestly maintain," he says, "that unless we treat the child in the primary school as the germ and embryo of all he is destined afterwards to become, our education will be doomed to an ignominious failure. Whatever, therefore, enters into our conception of liberal education, — and we have already seen that nothing less than all extant knowledge should enter into it, — that should enter into it from the beginning. Language and literature should be the subjects of elementary teaching; science should be the subject of elementary teaching; art should be the subject of elementary teaching. Whatever is to enter into the higher stages of education is to have its seed planted there or it never will be planted. The true distinction, therefore, between disciplinary and non-disciplinary, is not a distinction between one set of studies begun early, and another set of studies begun late; one set of studies pursued for training, and another set of studies mastered for use: it is a distinction between the earlier and the later stages of all studies whatever. The child, as well as the man, is linguist, student of science, artist, philosopher, moralist, poet; though his philology, science, art, philosophy will be childish, not manly; germs and intuitions, not results of developed reason."

It is somewhat difficult to determine very definitely just what he professor means. Would not the drift of the quoted para-

graphs warrant the inference, that every school, from the primary upward, should be a university; "childish," it may be, but still a university in variety of studies, where every pupil should be carried along at once in all the branches that, combined, make the sum of "extant knowledge"? Do we not here find a grand educational paradox? In the schools of Germany, where scientific thought has done most for education, it seems to have been practically assumed, that great excellence in teaching is to be attained only by the employment of teachers severally devoted to a specialty, and who can bring to the teaching of it the culture harvested from many years of concentrated and laborious research; but our education is to be an "ignominious failure," unless it makes its subjects proficient in the cosmos of science and art. Without question, it is a delightful vision, that of the good time coming, when our ideal republic shall stand the spectacle of an admiring world, without spot or blemish or any such thing; every citizen, male or female, the perfect embodiment of "all extant knowledge." But the great majority of teachers who have had a very large experience in encountering the friction and inertia developed in dealing with average boys and girls, however eagerly they may turn their longing eyes towards the dawn of that golden day, are still very much afraid that they may die without the sight. If we only could be spared to catch one glimpse, how easy it would be to "wrap the drapery of our couch about us, and lie down to pleasant dreams"!

This brings us naturally to another problem.

Not only have music and drawing been made, within a few years, to take a more prominent place in our schools than ever before, making a new demand upon the time and effort of both teachers and pupils, but there is a decided tendency to increase this extra demand, by the introduction of new exercises. All this is the result of a laudable ambition to accomplish as much as possible during the years of school-life, which are too few and brief. But have not many teachers already felt constrained to ask, How much farther can this multiplication of studies be carried, without being confronted by the barrier of public opinion that a class of reformers is seeking to raise against studying out of school-hours? In some grammar schools, the classes

in the last year of preparation for the high school have less than one fifth of the school session to prepare the exercises of the other four fifths; and this small fraction is divided into fragments of unequal brevity. Does such a plan furnish conditions under which it is possible to develop in pupils habits of systematic and efficient study? The solution of this problem should furnish a simple and definite answer to the question, What is the plan of conducting our schools that will ensure a constantly increasing quantity and quality of attainment, with as constant a diminution of the expenditure of time and effort on the part of pupils?

Still another problem is brought sharply before American educators by the thoughtful, and apparently candid work, recently from the pen of Dr. Edward H. Clarke of Boston.

His "Sex in Education" sounds an alarm from the watch-tower of medical science and practice that will be pretty sure to make many parents timid about having their daughters taxed to the extent, or with the degree of regularity, that they must be when subjected to the regime that is none too severe for boys.

It must be confessed that the view which Dr. Clarke presents of the condition of American girls and women is not an agreeable one; and that the theory which he propounds in regard to the needed modification of our educational methods is such that our present and prospective plans for general education cannot be very conveniently adapted to it.

But if a man so eminent as he, with unusual opportunities for extended observation, has been driven to such a conclusion on a question that so vitally concerns the future of American life, he certainly merits the gratitude of all good men and women by what he has done. It is not the part of wisdom or of candor to refuse a fair hearing and thoughtful consideration to statements that seem to support a theory that we dislike to accept. Is it not for the common interest of parents, pupils, and educators that the best men in the medical profession should throw as much light as possible upon this subject?

If the case be as Dr. Clarke has represented it to be, would not a selfish view of the matter prompt physicians to withhold the facts, that the continuance of a vicious system might create

and perpetuate a profitable patronage? But, as philanthropists, we all have a common motive to seek the truth, and bring all our educational methods into harmony with it.

Is it not possible that the necessary relief may be secured by giving greater elasticity to our system, in the direction of a little increase of liberty to be absent from recitation, while we hold firmly to a high standard of attainment; proof of such attainment to be furnished by passing a thorough examination at stated times, occurring at no long intervals, upon definitely assigned work?

Does not the proper settlement of some of these questions require a conference between able representatives of the medical and teaching professions? Hitherto, there has been little else than antagonism of views between teachers and doctors; because one class has regarded the other in the light of opponents. Is there not a more excellent way?

There never has been a time in the history of education when so many questions of vital importance were pressing for solution upon educators as just now.

Many an article dashed off by an editorial pen, without reflection, and received by thousands who read the daily paper more assiduously than they do their Bible,—and believe in it not less,—has tended to create extravagant expectations of the results attainable in the public schools; while like influences have discouraged any demand for increased effort on the part of pupils,—the primary condition of the possibility of the realization of such expectations. This state of the public mind has had its effect upon school committees. Some are seeking a remedy in a modification of the course of study; but, where theories are not limited by knowledge of the practical working, there is room for wide difference of opinion. One result of this is, that to-day the question, What is a proper course of study for the high school? is an unsettled one in many towns and cities.

Such a condition of educational matters should awaken educators to unusual earnestness, and incline them to united conference, for the purpose of reaching agreement on points of such vital importance, that without harmony of action upon them the work of our schools must be to a large degree desultory, and the

labor expended in them be wasted effort, — work not to be depended upon for definite and desired results. The presidents and professors in our colleges should unite with the teachers of the public schools in a common effort to reach the wisest conclusions in regard to all these questions at issue. An excellent opportunity for such a union of effort is offered by the State Association of High School and Classical Teachers. Those who have attended the meetings of this organization know how valuable they have been, and especially because educators in colleges, and those in the preparatory schools, have thus met, and have been ready, in the best spirit, to compare notes, and seek for the best mode of removing existing difficulties. We need a great deal more of such consultation.

DISTRICT SUPERVISION.

THE prudent and efficient management of the educational affairs of our larger towns has come to demand so much time, intelligent care, and professional skill, that the most competent men on boards of school committees readily see that the attendant duties are so large, and are of such a nature, that their proper discharge is incompatible with a business or profession that absorbs nearly all the time, thought, and energy at one's disposal.

A man who has so small a comprehension of the subject as not to see this is wanting in essential qualifications for the office. The recognition of these facts has led to the creation of the office of Superintendent of Schools, — an office which is honorably and usefully filled in many of our cities and larger towns by educators of large ability and experience.

When the true province of a superintendent comes to be thoroughly understood by the people, the committees, and the officials themselves, the office will be productive of even much greater good than it now is. He should not be burdened with such a budget of petty details — the kitchen-work of the school department — as to consume his time, and give no opportunity for the exercise of those powers and qualities that constitute special fitness for the office.

Neither should he, any more than the committee, whose servant he nominally is, take special pains to make painfully prominent his official superiority over those who may be his peers in age, experience, and professional ability. Between the teachers and himself there is need of the most cordial co-operation, — a condition that more naturally springs from considerate, sympathetic, and appreciative treatment, than from the most demonstrative exhibition of awe-inspiring authority.

But let there be combined in a superintendent good sense, a genial disposition, a quick appreciation of whatever is good and worthy of respect in a teacher, a clear and comprehensive philosophy of the mutual relation of age, capacity, method, and work to be accomplished, tact in arranging and bringing many to work in harmony to achieve a given end, and, finally, steady perseverance in working and waiting, — let all these qualities be duly combined in a superintendent, and he will be quite sure to return the equivalent of a good salary to the community that is so fortunate as to secure his services.

We have said thus much in approval of the good work that has been already accomplished. But school supervision is to-day practically unknown in those parts of our Commonwealth where there is the most urgent need of it.

In the cities and larger towns, teachers are usually employed who are quite as competent to direct all that pertains to the successful conduct of the schools over which they are placed as any whom the law may make their official superiors ; but, in the smaller towns, a very different state of things prevails.

To state the case very cautiously, there are many of these towns that have but few citizens competent to discharge the duties of school committee, and still fewer who are both competent and willing. This is not said in the spirit of disparagement, but is a simple recognition of facts for whose existence no one is blamed. Men can hardly be expected to have superior skill in matters to which they have never given attention. The school-houses are so distributed that the scholars to be taught in each range in number from six to twenty-five or thirty ; the sum of money raised for educational purposes is so small, that, when divided among the schools, it allows only enough meagrely to pay

a cheap teacher for pretending to keep a cheap school for the smallest number of weeks during the year that will meet the demands of the revised statutes. The candidates most likely to apply for such schools are those who have had little or no experience, and who are often, not without reason, timidly hopeful in regard to the success of their experiment. The result of an application is often decided by a very simple and convenient rule, "First come, first served."

The next scene will, quite likely, be a comedy or a farce. A teacher with limited education, less experience, and no more resources and self-reliance, left alone with her ten or twenty untutored boys and girls, soon finds herself at sea in a tub. Her energies are more likely to be expended for the purpose of keeping above water, than for the accomplishment of a very long voyage.

If the daily history of scores of schools that are furnishing the only facilities for education to future citizens of our State, and nation could be faithfully daguerrotyped in the annual report, we should see something to humble our State pride, and awaken feelings of compassion for the poor victims.

Parents who send their children to such schools may be painfully aware of the state of demoralization that prevails, and yet feel that they are powerless to effect a reformation. The school committee alone have legal control in the premises; and the probabilities are, that they either do not know what to do, or, if they know, dare not do it: so the teacher is suffered to worry through the term, and is paid the pittance of the town's money for the endurance. What have the pupils to show in the way of mental and moral culture, knowledge, and skilful practice, or general preparation for the duties of citizenship? Yet, year after year the same farce is enacted, and so will continue to be, until some system is adopted that has enough method and vigor to reach and remedy the venerable methodless method.

If the more sparsely settled portions of the State could be divided into districts, severally embracing territory enough to furnish a reasonable field of work for an efficient educator, acting as superintendent and director of the schools within his district; if it should be made his duty to work for the largest practicable

centralization of scholars to see that no incompetent teachers are allowed to spoil the schools, and that the best methods and the best books are kept in use, we should soon witness a reform not second in importance to any of those upon which we have prided ourselves not a little.

We do not wish to be understood as intimating that all the schools in the small towns are poorly taught or badly governed. On the contrary, many of them are very fortunate in securing excellent teachers, the worth of whose services is very inadequately measured by the wages they receive. This, however, is not inconsistent with the truth of what has been said. If confirmatory testimony were desired, it could be readily furnished.

The imperative need of adopting a new mode of managing these schools arises from the abundant evidence furnished by experience, that the methods used hitherto are ill adapted to secure the desired result. The prevalent system does not involve forces adequately tending to ensure progress. If, by good fortune, something is gained one year, it is quite likely, by ill fortune, to be lost the next.

A healthful stimulus is given here and there by the institutes at which the teachers are assembled from several neighboring towns, and during three or four days are taught how to teach, by those who have had large experience, and are known to be practically successful in teaching. Some good doubtless results, too, from the occasional visits of an agent of the board of education; still such influences are too local and inconstant; too indefinite to produce the desired results.

Can the friends of education do better than to unite in asking wise legislation, that shall make provision for an efficient system of district supervision?

OUR PUBLIC SCHOOLS.

↓
BY EDWARD H. RICE.

WE feel a degree of pride in our public schools, and justly so; for they are a comfort at home, and a credit abroad. Yet it becomes us to consider candidly what defects may seem to exist, and what remedy may be at hand.

From France we can learn little of value ; for perpetual revolutions, and the unfortunate interference of religious factions, have conspired to ruin any systems which may have been devised.

From England we can learn still less ; for her common people are deplorably ignorant. The numerous monuments which adorn her public squares, and boastfully record the triumphs of English valor, are as meaningless to the average passer-by as the obelisks in the British Museum. The English scholars are, indeed, acute and profound ; but education is an expensive luxury, which the utter lack of free schools has denied the common people.

To Germany, then, we must look, if we would obtain hints of practical value.

The admirable system which " Old Fritz " inaugurated, study and experience have perfected, till the Prussian schools have become a model for the world.

For so young a nation, we have made most remarkable progress ; yet we may learn much from those who have studied longer and worked harder than we. The methods of education best fitted for our younger scholars are yet under debate ; and we do not care to enter upon that branch of the discussion. We would rather confine ourselves to the older scholars in our grammar and high schools.

The teacher looks over his school : the faces are beaming with intelligence and thought ; and yet how many of the pupils have given any serious consideration to the work of life, now drawing so near ? Some are going to college ; but this increase of advantages is too often only a shallow pretext for postponing all thought in regard to the future.

Much of this indecision is the fault of parents. The tastes and capabilities of the child are not canvassed at home ; and he does not feel as if he were fitting himself for some definite, specific work in life.

The German child, on the other hand, sees three walks of life open before him. First, the trades, which offer support, indeed, but little more. Second, the learned professions, which offer honor, and perhaps abundant pecuniary compensation. Third, the army, which, to the private, holds out small inducements ; but to the officer its promises and hopes are ample. The child's

decision is early made ; and he then feels as if each day's work placed him nearer the object of his hopes. Our children, on the other hand, scarce know to what purpose all this study may be ; and, when school days are over, so far from finding themselves ready to begin a work for which they are specially fitted, they find themselves, like Micawber, "waiting for something to turn up." The ladies are even more at a loss than the young gentlemen ; for there are fewer occupations to which they can apply themselves. If they begin teaching, they do so only as a provisional employment, and, for this reason, they often fail most signally.

Again, very few of our schools are so conducted as to foster habits of persistent study or close application. The scholar studies forty minutes, then goes in to recite ; then studies another forty minutes, then recites again. Thus the time passes, and his mind is perpetually diverted from one subject to another, his time is so atomized that he hardly knows what real application may be.

At home, indeed, the scholar *may* secure unbroken time for study. Yet in how many families is this golden possibility realized ? As a rule, the time is even more broken up, and the attention more frequently distracted.

Most scholars, indeed, must study in the common sitting-room of the family, where the attention is divided between the work in hand and the general conversation in progress.

Nor is this all : numberless petty duties are required of the scholar which consume his time, and draw his mind away from the work before him. Special occasions of a public character aggravate the evil. Fairs, festivals, etc., tell their own story in the school-room, and do the scholar a great injury. But a worse evil is far too common. Scholars are frequently detained from school, to assist at home and in the store. On returning, they find that their classes have gone right on ; and double work must be the consequence. This, the scholar cannot do, and do well ; and his poor recitations have a demoralizing effect upon himself and on the school.

That these evils are serious no teacher can deny ; that the remedy is easy, is equally evident. We may not be prepared to

make our school-houses simply a system of recitation-rooms, like the German gymnasia ; but we may at least make the duties of school paramount to everything else. If a German father were to occupy his child's time and mind with, outside, work to the detriment of his studies, the school board would speak to him in a way he would understand.

We, on the other hand, esteem it a light thing to burden our children with numberless duties, and then with an inconsistency all our own, we complain that they do not make more rapid progress. As parents and teachers, it devolves upon us to talk with our children, till they feel they have some more definite object in life than the diploma they are to obtain. It belongs to us to assist them in forming habits of study and application, and to avoid so distracting the mind that such habits shall be impossible. And finally, we should hold the scholar's time as sacred to study. His school days will end soon enough, at best ; and the various little duties of home or store will prove a poor substitute for the lessons which they replaced.

TEACHING PERCENTAGE AND INTEREST.

So large a portion of the arithmetic taught in our schools is covered by the principle involved in percentage, it being, at the same time, an exceedingly important and practical part, we should strive to adopt and practise the best method of teaching it.

There is reason to fear that the habits of working examples in interest, that are sometimes pretty firmly fastened upon pupils by the special drill of the school-room, would disqualify them for service in any position where even ordinary quickness of working is required. The trouble is often aggravated by the text-book used. There lies upon my table an arithmetic, but recently published, — one supposed to embody the latest improvements. Nearly one fourth of it is occupied by examples, rules, etc., of which the single underlying principle is that of percentage. I propose to call attention to a rule for computing interest, quoted from this book, not because the rule is any more faulty than similar rules that might be quoted from a dozen other arithme-

tics, but because the book is at hand, and will enable me conveniently to illustrate the point that I wish to make clear.

"To compute interest at 6%. Find the interest of \$1 for the given time, by taking six times as many cents as there are years, one half as many cents as there are months, and one sixth as many mills as there are days; and then multiply the principal by the abstract decimal which corresponds to the interest of \$1, thus found."

The sudden and unnatural turn taken by the final clause of this rule suggests what seems to me the viciousness of the entire rule.

The interest upon a sum of money for a specified time is simply a fractional part (usually expressed decimally) of that sum. The rate per cent, of course, denotes the number of hundredths of the principal to be allowed for the unit of time; this is generally one year.

Interest, then, differs from percentage only in this: in working examples under the latter head, the base is multiplied simply by the rate; while, under the former, the base or principal is multiplied by a fraction (decimal) composed of two factors, rate and time. In banking, discount, present worth, insurance, commission, profit and loss, no other principle is involved than we have found in percentage and interest.

If we teach the pupil to compute the interest upon \$1, as the first step towards finding the interest upon another sum, logically the interest upon \$1 for the given time is the multiplicand, and the number of dollars in the principal is the multiplier. But let us suppose that the principal is given in some other currency than United States money, *e. g.* English money. We shall see at once that the rule given is entirely inapplicable. Now, reverting to the principle already stated, the pupil will easily be made to see that at 6% the interest would be .06 of the principal for one year; .01 for two months; .005 for one month; and .001 for every six days, or one fifth of a month. If the pupil then be required to solve this example,—What is the interest at 6% of \$48.25 for 3 years, 5 months, and 18 days? let him be taught that reckoning .06 for one year, .005 for one month, and .001 for every six days, he would have .18 for the 3 years, .025 for the 5

months, and .003 for the 18 days, or .208 of the principal for the given time. $\$48.25 \times .208 = \10.036 . Adherence to this simple principle through all the variations of percentage computations will relieve the pupil from considerable perplexity, and will make it easier to teach him how to take advantage of opportunities to abbreviate the work and come at results by short methods, for which no general rules can be given, but which mathematical tact will be constantly discovering, and that, too, with special delight, in the peculiarities of the given data.

Pupils will generally need some hints and illustrations to show them how to work independently.

If the rate be other than 6%, it will usually be more convenient to compute interest at 6%, and then add a fractional part of this interest to itself. For example, if the rate be 7%, add $\frac{1}{6}$ of the interest at 6%; if 8%, add $\frac{1}{3}$; if 9%, add $\frac{1}{2}$; if 5%, subtract $\frac{1}{6}$; if $4\frac{1}{2}\%$, subtract $\frac{1}{4}$, etc.

It might be well to show that the reason for the special facility of computing 6% interests depends upon the fact that 6 is a factor of 12, the number of months in the year, and also of 30, the number of days in a month.

Yet there are many cases when it would be better to depart widely from the methods given above. If the pupil were required to find the interest of any sum at 7%, for 4 years and 6 mos., it is evident that it would be proper to teach him, that if .07 of the principal were allowed for 1 year, for $4\frac{1}{2}$ years, $4\frac{1}{2}$ times .07, or .315, must be allowed.

Again, in computing interest at $7\frac{3}{10}\%$, we should not fail to note that this is, as it was specially intended to be, at the rate of two cents a day on \$100, for every day in a year of 365 days. It will be an easy matter to show how this fact may be used to simplify and facilitate the computation.

So the peculiarity of the data connected with bank interest may properly occasion a special treatment. Suppose the pupil be required to compute the bank interest, or discount, on a note of \$275, for 90 days and grace. He should see that for 60 days the interest is .01 of the principal, or \$2.75; for 30 days, $\frac{1}{2}$ as much, or \$1.375; for 3 days, $\frac{1}{10}$ of the latter sum, or \$0.1375: total discount, $\$2.75 + \$1.375 + \$0.1375 = \$4.26\frac{1}{4}$. It is evident that,

in working simply for the result, the process would occupy much less space than we have given it here.

If this article should seem to any unnecessary, on the ground that it contains nothing new, my apology is, that many pupils in our schools go through their arithmetic, and are then utterly ignorant of the principles and processes which have been here treated somewhat minutely.

✓ *ELEMENTS OF DESIRABLE SUPERVISION.*

WHAT kind and degree of supervision is most serviceable to schools and teachers ?

In attempting to answer this question, we reply, that supervision will be most serviceable to schools and teachers which is an unbiased supervision. There is a tendency among those who perform the duty of supervision to judge favorably or unfavorably of the teacher and her work simply from a personal like or dislike for the individual who teaches.

You need not go beyond western Massachusetts to hear severe criticism of a teacher who is doing faithful and conscientious work, because of a personal dislike for the teacher.

There are too many schools in our State which are superintended by those who recognize in the teacher nothing more than a hired servant, whose duty it is to please her employers ; hence, if she be lacking in personal grace, though she have the mental and spiritual graces which fit her pre-eminently for the position which she fills, she is weighed in the balance, and found wanting. An unbiased supervision must recognize, as a fact, the principle that the physical peculiarities of the teacher, religious preferences, private beliefs, etc., so long as they do not affect her pupils injuriously, or tend to mar her influence as a teacher, are none of the supervisor's business.

Again, that supervision will be most serviceable to teachers and schools which recognizes the fact that teaching is a profession, and that he is best qualified to direct and prescribe, to whom the work of teaching is a matter both of experience and conscientious study. Our committees are too often constituted

of men whose time and thoughts are entirely engrossed in their own pursuits,—men who have not the leisure to understand, or the inclination to appreciate, the work of the school-room ; often of narrow minds, accustomed to the regular routine of business, wont to look at everything from a business standpoint. Such men are liable to consider a teacher successful, or otherwise, according as he fits his pupils to become accountants, clerks, or whatever, in their opinion, is the chief pursuit of man. Should the teacher, not valuing business success less, but good citizenship more, consider other tests the true criterion by which his work is to be measured, he is considered visionary and unpractical. Being deemed incapable of determining what his school requires, his wishes are unheeded ; nor is he consulted concerning matters of most vital importance to his school. He is hampered by unnecessary restrictions, embarrassed for the want of means properly to perform his work, and sees his golden opportunity slipping by unimproved, simply because those who are over him in authority cannot, or do not, appreciate his situation. Let the teacher see to it that he keeps himself in a condition favorable to right judgments, that his wants and opinions are reasonable ; and then let those to whom the supervision is intrusted act upon the supposition, that he knows more about his own necessities than any one else can know.

Again, that supervision will be most serviceable to school and teacher which bases its judgments upon an accurate knowledge of the facts in any matter concerning the school, and does not use the position as a stepping-stone to something higher, or as a means of accomplishing private ends.

Were it expedient to do so, illustrations might be given, taken from personal experience in western Massachusetts, in which the highest and most important position in the schools of the town has been offered or refused a candidate for considerations not even remotely connected with the good of the school. A candidate for the principalship of a high school, located just outside the Connecticut valley, was examined on this wise : " Are you a tenor singer ? Could you lead a choir ? To what church do you belong ? We thought we would secure a man capable and willing to fill such a position in our choir at the

same time that we obtained a teacher for our high school." The same man offering himself as a candidate for a grammar school, in a town not far from Springfield, was examined by a man, not a clergyman, as in the former case, whose name is somewhat known in Massachusetts political circles, on this wise : You are recommended by Mr. A. as being a —, mentioning a certain religious denomination. You are a graduate from — ? Both questions being answered in the affirmative, the examiner said, This school has been in the hands of a — ; and we have decided to give you the appointment, believing that it is about time that a —, mentioning the denomination to which he belonged, had the appointment.

Such supervision, though growing rapidly less, is even yet too prevalent in our smaller villages. Many a teacher could, were he disposed to do so, give from his own observation, if not from his own experience, cases in which the political preferment of the supervisors has outweighed every other consideration, in matters pertaining to the welfare of the schools. Comment on such supervision is unnecessary.

Without attempting to point out the particular duties of those whose business it is to supervise the schools of a town or city, one more qualification may be added in closing.

A supervision which gives dignity and authority to the schools and teachers may be of great service. A teacher who is brought into daily contact with young persons soon becomes, in their estimation, somewhat of a humdrum personage, whose words fall upon dull ears, which heed but lightly the admonitions and counsels given. Let these words of the teacher be supplemented by occasional remarks from men who carry weight, and exercise a controlling influence in society, and they no longer pass unheeded. If the school supervision be intrusted to a man, or body of men, commanding the respect of the community, the last condition of excellence is attained ; and there remains little more to be desired. *

TO WHAT EXTENT SHALL LATIN BE A REQUIRED
STUDY IN THE HIGH SCHOOL?

At the present time, when the relative value of classical and scientific studies is the object of such extended discussion in our colleges and academies, it is impossible that the question should not come up in some form in connection with our high schools. In fact any discussion which tends to introduce radical changes in the course of study of the higher institutions of learning must affect, in a greater or less degree, the lower, not only that they may meet the different demands made upon them, but also conform to a change in public sentiment.

It is not our present purpose, however, to consider the above question with reference to the relation between the high school and college, but only with regard to those who finish their education in the public schools, and who constitute the great majority.

In a country like our own, with vast resources to be developed and utilized, it is as natural as it is necessary that prominence should be given to those studies which bear most directly upon the great industries of the nation.

The consequent tendency is to discard classical studies in the public schools, except for those who are fitting for a collegiate course.

Ought Latin, then, to be a required study for those who finish their education with the high school? What part does it play in the education of the masses?

Of what possible use can the study of Latin be to the farmer, merchant, and mechanic, when in all probability they will never open a Latin book after graduation?

Would it not be much better to spend the time in pursuing those studies which they could apply immediately and practically to business? Such inquiries as these are often heard; and, if mere *utility* is the end of education, they are not made without reason.

If that only is to be learned which can be coined into dollars and cents in the shortest possible time, it might be questioned whether a knowledge of Latin would meet this requirement. But if, on the other hand, the true end of education is intellec-

tual training, those studies which will best secure this end, by expanding the mental powers and by qualifying for philosophical and comprehensive views, should enter largely into the high-school course.

That the study of the languages alone would secure this broad development, no one would be bigoted enough to assert. A combination of studies, embracing both classical and scientific subjects, is necessary to produce the finished scholar.

It is not, however, without reason that many, especially those who have no knowledge of the languages, are led to consider that the time devoted to their study in our high schools could be better employed on other subjects.

The failure which often attends the study of the classics may be easily accounted for on several grounds. We have reason to believe, first, that there is rarely a just apprehension of the *kind* of work to be done. Most scholars, and many teachers, are satisfied with the mere verbal translation of an author, and entirely overlook the most valuable elements of the study, — the roots, primary and derivative meanings, the laws of formation, the relations of thought indicated by the cases, moods, tenses, and the arrangement of words ; in short, everything which is necessary to an accurate translation of the *thought*. As a result, the rendering is crude and inaccurate ; the English is warped and twisted to fit the Latin idiom ; and that which should be the highest result of classical study — facility, accuracy, and elegance in the use of the “mother tongue” — utterly fails of accomplishment.

The study which, rightly entered upon, and kept up, would strengthen the mind, enlarge the judgment, and correct the taste, is too often set aside prematurely in disgust.

Another reason why classical studies fail to produce their legitimate results, is the prevalent habit of going over too much ground in a given time.

The study of any language, especially at the outset, requires that the most careful attention be paid to minute details, in order that a sure foundation may be laid for future progress.

The temptation to be superficial is very great, particularly with those who are fitting for college, as they often wholly over-

look the fact that the benefit to be derived from a college course is, as a rule, exactly in proportion to the fitness for it. It is only by a slow and thorough method at the outset, having each step thoroughly plain and familiar before passing on to the next, that a healthy interest can be maintained or true progress secured. There would then be none of that vagueness and mistiness that often surrounds the study of the classics, and causes them to be blamed for what is only due to a hasty, confused, and ill-directed manner of studying them.

A third and more important cause of failure is the want of properly qualified teachers. To be a successful teacher of the classics requires not only the most complete acquaintance with all the details of the study, but also a large experience in the best methods of training classes.

The age at which scholars usually begin to study the languages is not favorable for patient investigation and application. They need to be guided at every step, that mistakes may be avoided, and correct habits of study may be formed. It is a wise plan of some of our schools, which places the beginners under the oldest and most experienced teachers.

Other causes of failure might be enumerated ; but those that have been mentioned, so far from condemning the study of the languages, only prove that, under proper conditions, they form a highly important and indispensable means of education, and ought to form a part of the curriculum of our high schools.

The question as to how long Latin should be a required study in the high school depends on the merits of the study and the end to be secured. That the study richly merits a place in the public schools, no fair-minded person will deny ; and, to secure the best results, it should not, when once undertaken, be hastily set aside. It is our belief that no less time than two years should be given to it. More would be better ; but, rightly pursued, and skilfully taught, it would in that time do much towards creating and fixing habits of close thinking and patient investigation, to say nothing of the direct tendency it would have to elevate the prevailing low standard of literary excellence in the community at large.

RESIDENT EDITOR'S DEPARTMENT.

AN EXERCISE IN ENGLISH LITERATURE.

"Your mind is tossing on the ocean,
There, where your argosies with portly sail, —
Like signiors and rich burghers of the flood,
Or, as it were, the pageants of the sea, —
Do overpeer the petty traffickers,
That curtsy to them, do them reverence,
As they fly by them with their woven wings."

Merchant of Venice.

Teacher. I wish to know, scholars, how many of you are pleased with Salarino's description of that sea on which he thinks Antonio's mind is tossing. Let me caution you, however, not to praise the scene because it is Shakespeare that paints it. You may be tempted to do so, because you think it safe and proper to praise any work from the hand of so great a master; in short, because you reverence the authorities. Possibly you may suspect that a confession of indifference will prove more damaging to your own than Shakespeare's fame. Or, perhaps, you may think that you are now expected to give your tribute of praise, and, in the kindness of your hearts, you may not wish to disappoint by declining. Praise from such motives is not genuine. If, as you read the passage, you feel a thrill of pleasure, however slight, you will so report it; if nothing of the kind, report with equal frankness. (The opinions of the class are taken.) I observe that some of you are more or less pleased, some are indifferent, while not a few, if I can read your faces, find it hard to decide what your real feelings are. Now why these degrees of feeling? They measure your enjoyment of the description. A complete answer is too much for us to attempt. A partial one, I think, will prove rich enough to pay for working it out. Let us seek for it. Suppose yourselves painters about to illustrate the passage. As I read it, will you picture it as vividly as possible? Remember what you put into your pictures, and why you put it there. If you will close your eyes, 't will aid you in your mental art. All ready. (The

passage is read.) You may now suppose your pictures varnished and framed. It is too late for any changes. Will the first pupil tell me about his picture? For the sake of definiteness, let us find out what kind of a sea he has. Is it smooth or rough, near land or with no land in sight, green or blue, light or dark?

Pupil. In the foreground I have a sandy beach. From it I look out on the open sea. It is not very rough.

T. Tell us more definitely about the surface,—the waves, for instance.

P. Well, there are breakers on the beach, with more or less foam and commotion there, but off where the vessels are, I have no roughness to speak of.

T. Is your sea under a clear sky, or are there clouds above? If the latter, how do they look? Is your scene a morning, noon-day, or evening one?

P. I only know that my scene is a bright one. The sun is reflected in the water. I didn't think of clouds at all.

T. Have you ever seen anything like your sea and breakers and beach?

P. Yes, sir. I think I have put Nantasket Beach into my picture. I have often seen breakers like those I have mentioned.

T. Will the next please tell about his picture?

P. I have a sea rough with waves. They have white crests, and the spray is blown away from them at times. I call the sea *choppy* one. Then there are white, fleecy clouds above, and on one side an island with a lighthouse.

T. Where did you get your idea of a *choppy* sea?

P. I got it while sailing in the harbor. That's what the skipper called the water.

T. Does your lighthouse resemble any that you have seen?

P. It looks very much like Minot's Ledge; and yet it is high up on a rock or knoll. I imagined an island, and when I put my lighthouse on it, I couldn't help thinking of Minot's Ledge.

T. So far as you can tell, scholars, have you all pictured land and sea like those described?

P. No, sir.

T. Will the next pupil tell me about his argosies? Are they

large or small, few or numerous, modern or ancient? Tell about their masts, sails, color, and crew.

P. My argosies are ships, — a fleet of them, under full sail, a little inclined because the wind blows fresh.

T. Do they look like vessels you have seen?

P. Yes, sir, very much like vessels down at the wharves.

T. What kind of argosies has the next?

P. Mine are short and fat, with two masts, and large sails swelling out. The bows and stern are built up very high. There are guns on board to keep off pirates.

T. Not very modern vessels, I think. What gave you your idea?

P. O, I've read about old Spanish galleons, and seen pictures of them. I don't remember much about them, to be sure, but they helped me.

T. How many of you have flags flying from your argosies? Not many, it seems. You may now take the liberty of hoisting colors in your pictures. The next will please describe her flags.

P. My flags are American. I know they are not right, but I could n't think of any other in the time given me.

T. Never mind what they are; at least, for the present. Try to think, however, why you selected them. What says the next?

P. Mine are streamers, red, blue, orange, and other colors; but each streamer of the same color throughout. I could only think of American, French, and English flags, and I knew those would n't do. Streamers can make argosies look gay like pageants, can they not?

T. Certainly. Your idea is an ingenious one. Has any pupil something new to suggest for colors?

P. Mine have a yellow background with a black dragon on it.

T. A strange flag, truly. How do you account for it?

P. Well, I made it up. I had to do it. I'm sure I know nothing about old Venetian colors, and would n't it be absurd to have modern ones? Then, too, I've seen a lion or dragon in some Venetian picture, and I thought the animal might do for a Venetian flag as well. I used black and yellow, because they make a rich combination.

T. Ah, you've been thinking of the lion of St. Mark, which

surmounts a column of red granite in a Venetian square. But enough about picturing flags. I don't know what the ensign of old Venice was; I presume you don't know. Can either you or I picture it?

P. No, sir.

T. True; the best we can do is to imagine something becoming to an argosy of those old times, and save the subject, if we choose, for investigation. How many of you have detected an increase of pleasure since picturing the passage? Yes, you begin to think better of this bit of word painting already. I feel so sure, however, that your pleasure still widely varies, as at first, that I will not question you to find out. Now the question with which we started. Why does our pleasure vary as we read such descriptions?

P. Is n't it because many of us don't *see* what is described? No picture, no pleasure, I think.

T. Yes, that is one reason. We read thoughtlessly. The gems are not seen. In literature, as in natural history, we must observe. How can we admire what we don't see? But there is another reason why our pleasure varies. Our talk has revealed it.

P. Those of us who do observe don't observe alike. We don't form the same pictures. I don't see how we can. Unlike pictures, unlike pleasures, I say.

T. Yes, but will some one tell why the pictures were not alike?

P. I think the pictures to-day are pretty closely connected with what we have ourselves seen and read and talked about.

T. That is true. The pictures we mentally paint must be reproductions of what has somehow come within our experience. The more and better one observes, the wider and more thoughtful his conversation and reading; and the better he attends to the descriptions before him, the more appropriate and vivid his mental pictures will become, and the greater the pleasure they will give. I have sometimes wondered what sort of a picture a Pacific Islander — one who had never seen or heard of anything outside of his savage sphere — would get out of Salarino's description, should an interpretation be attempted. His ocean might not be less beautiful than ours, but his coast lands would be coral shores, and his trees palms instead of oaks or pines, while his argo-

sies would be proas with triangular sails, scudding the waters with the state of tattooed chiefs. How difficult it must be to translate Shakespeare for a savage. Translators of the Bible are often put to severe tests in their attempts to convey ideas of unfamiliar things. It is said of the old masters that, whatever the nationality of their characters, the Dutch usually painted them Dutch, while the Italians made them Italian. Many curious and suggestive facts of the same sort may be mentioned. They illustrate the thoughts we have been trying to develop to-day: 1. Mental pictures based on the same description vary. 2. One reason why they vary is that the materials of which they are formed are as widely different as the observation and experience of those who collect the materials.

F. A. H.

NOTE. — The writer of this article has occasionally given an exercise like this in the class-room. He is aware that it is an exercise in mental philosophy as well as in English literature, but that makes it the more valuable. It is slightly idealized. It will be difficult to confine wide-awake boys and girls to one line of thought. Pupils picture with great readiness. When they describe their pictures, their tongues are unloosed; they have something to say. A comparatively easy principle is settled here, but it is usually a revelation to young people that cannot well be made in any other way. This one settled, try another topic like the following: "Given similar materials, are people likely to form similar pictures? If not, then why not?"

Thus the imaginative power becomes a subject of study, and another reason is given why pupils don't picture Salarino's description alike. Again: "If the beauty and force of our pictures depend upon the materials used and our skill in combining them, to what credit is Shakespeare entitled?" And so on.

These exercises are based on the idea that literature *itself* should be studied before its history, and that, while there is much in its beauty or deformity, its power or weakness, which it is difficult to appreciate, and much more to define, there are yet topics of study, numerous and definite enough to awaken interest in the young, promote their culture, and help them in criticism. Many of them may be put into the way that leads to that higher plane of art on which it begins to be revealed why Milton, Shakespeare, and such men are great and belong to all time, while the multitudes are small and belong only to the present.

PICTURES IN TEACHING NATURAL HISTORY.

CAN pictures be used to advantage in teaching the elements of natural history?

This question has been the theme of two articles in the "Teacher," each containing many valuable suggestions, though differing entirely in the conclusion.

It seems to us that there is a misunderstanding with regard to the use of pictures. It is not claimed that pictures are *all* that is needed, but that they may become essential aids as "cards of introduction to nature's school-room."

The exception taken to this phrase in one of the articles referred to, "that nature does not stand upon etiquette," we think hardly fair, as it interprets "introduction" in a specific sense not warranted by the context. Its ordinary meaning (which is also in accordance with its etymology) seems to us to express exactly what the author evidently intended, and what we think is defensible.

At any rate, that is the real question at issue, and upon its decision must depend the answer we give to the question with which we began.

Can a teacher, by the use of pictures like those of Prang & Co., aid pupils in recognizing the peculiarities and *essential characteristics* of different classes? Can he awaken an interest in the subject, and assist them in forming accurate habits of observation, by directing their attention to these characteristics when they see the *thing* itself?

That, we take it, is all that is really claimed for them; and that, we think, constitutes such an "introduction" to natural history as will be, in itself, valuable, and lead pupils, in many instances, to pursue the subject further.

It seems to us that a child who has had the training which these pictures are designed to give, will, when he sees the animal or plant, be more likely to observe accurately and intelligently than one whose attention has not been directed to *characteristic* marks which serve as a basis of classification. The plan of instruction, for which we are indebted to Prof. Calkins, we think eminently adapted to render the pictures available as means of illustrating some of the more important distinctions in different classes.

We think Prof. Agassiz admits all that is claimed for them, when he says that "the text" [as prepared by Prof. Calkins] "may be made the basis for substantial instruction, in connection with the plates." "Of course," he says, "such means can never take the place of natural specimens; but, where books must be used, I have no hesitation in recommending yours."

We presume he would have used similiar language with reference to Guyot's Physical Geography; and we know of no one who would object to books, plates, and maps in teaching this science.

A COURSE OF DRAWING FOR PUBLIC SCHOOLS,

PREPARED BY PROF. WALTER SMITH,

State Director of Art Education for Massachusetts, and General Supervisor of Drawing in Boston Public Schools.

ANY course of drawing pursued in the public schools should give two results, the one educational, the other practical. Hitherto it has not been very clear that either of these results was secured by the drawing in American schools; hence, when taught at all, drawing has been little more than a tolerated study. But now that educators and practical men begin to realize its full scope, its bearings upon culture and industry, when it is properly taught, both demand that it be made an obligatory study in all public schools, from the lowest to the highest. They demand, however, that the method of instruction be changed.

Leaving the past behind her, Massachusetts is now making a noble effort to give her whole people a broad, practical art education, of which drawing must always constitute the basis. By reason of steam carriage and telegraphic communication she finds herself compelled to struggle with European competitors for the control of even her home market; and so she is resolved that her laboring classes shall be as well educated, technically, as are the laboring classes of Europe. The same influences which have aroused Massachusetts, are felt in all parts of the country, and must, soon or late, lead to the same result — the popularizing of art education.

It will be well, in this connection, to describe, briefly, what Massachusetts has done and is doing — to describe the general character of the art and artisan instruction which is, even now, largely given throughout the State.

In 1870 the Legislature of Massachusetts passed a law which made instruction in drawing obligatory in all the public schools of the State, and also required every city and town having ten thousand inhabitants to maintain a free drawing school for adults. To give practical effect to this law; to start right and continue right, it was necessary for some person, fully competent, to have the general direction. Satisfied that there was no one in this country fitted for this responsible duty, the State Board of Education secured the services of Walter Smith, of Leeds, England. The city of Boston uniting with the State in paying the expenses, Mr. Smith was made "State Director of Art Education," and "Supervisor of Drawing for the Schools of Boston." This double office required that he should introduce a course of art study into the schools of Boston, under his immediate supervision, and that he should give general direction to art study throughout the State.

For twenty years Mr. Smith had been engaged, as a teacher, in promoting the art education of his countrymen. At the time he was called to Massachusetts, he was master of three schools of art. He was also at the head of one of the only two normal training schools for art masters. The other is the celebrated South Kensington Museum. Mr. Smith was in the direct line of promotion, and had good reason to expect that, if he remained at home, he might ultimately become master of South Kensington itself. This would be the highest honor of the kind which his country could bestow. When, therefore, Massachusetts, following the advice of the art and science department of the British government, proposed to Mr. Smith that he should come to this country, there was little expectation that he would consent. Why did he, then? Solely because here was a vast uncultivated field in whose soil he could plant, according to his own mind, the seeds of a popular art education, which would spring up and bear abundant fruit for years to come.

Fully comprehending what is meant by art education, Mr. Smith saw, from the very beginning, the end to be attained, and all the intermediate steps to that end. First, there must be a course of study systematic and logically progressive; and it must be sufficiently comprehensive to meet at least the general wants of the different industries. The gradation of subjects must be made with care, and sufficient practice given to each, while related subjects, which assist each other, must be taught simultaneously. Second, the instruc-

tion, so far as the public schools are concerned, must be given almost wholly by the regular teachers — wholly by them in the lower schools. Third, there must be suitable books, suitable both for teachers and for pupils ; also models, casts, etc., without which good instruction is impossible.

A graded course of drawing for the Boston schools was laid out. In order to prepare the teachers, Mr. Smith gave them lessons, and still continues the lessons, as all the subjects have not yet been completed. He has visited the schools from time to time, observed the work there done, and thus made certain that his general directions are followed. But he himself has not taught in the schools. Assistants, visiting the schools more frequently, have attended to the details of instruction. Mr. Smith has seen that all the pupils were examined for promotion in drawing, as in other studies, and that public exhibitions were held, showing the work done not only in the common schools of Boston, but in the evening schools throughout the State. He determined the general character of the evening drawing schools for adults in the city, and has superintended the instruction given in them. He has also aided in the organization of similar evening schools in different parts of the State, and given many public addresses. He has rendered great service to a large number of towns that have called upon him for help. The Normal Schools have received his personal attention, and he has worked in many Teachers' Institutes. He has had suitable drawing models made for the different grades of schools ; he has prepared four large volumes of drawing copies for advanced instruction ; he has delivered two courses of lectures (twelve each) before the Lowell Institute ; he has published a work on "American Art Education" ; he has made a series of drawing-books for public schools ; and he has just launched, successfully, the Massachusetts Normal School of Art. This, however, is by no means a complete catalogue of Mr. Smith's labors since he came to this country.

It is now clear enough, from the results already achieved, that Mr. Smith was master of his business, and not a mere experimenter. Being sure of his ground, he went boldly forward. The general scope and progressive character of the work he is doing was seen at the State exhibition of Drawings which was held in Horticultural Hall, Boston, in May last. There were some 20,000 drawings from the Boston schools alone, showing the work of all the classes, from the primary schools to the high and special schools. The illustrated report on drawing, recently published by the school committee of Boston, also gives on a small scale a like general view of what has been accomplished. Now that Mr. Smith's drawing-books have been published and put into the schools, there is no doubt that the next exhibition of drawings will show a decided advance upon the last, with diminished labor on the part of the teachers.

It is true, Mr. Smith alone could not have accomplished what we already see ; he has had the hearty co-operation of both public officials and private citizens. But they have co-operated with him in carrying out *his* views. So, when we speak of what he has done, we but describe, in a general way, the course of art education in Massachusetts during the past three years. As

this education must elevate wonderfully all the industries in which our people are engaged, it is safe to say that Mr. Smith's labors will, in the end, add untold millions to the wealth of the State.

We will now consider the character of the course of drawing which Mr. Smith has proposed for public schools, as that is the department of art instruction in which people are more especially interested at this time. From an address which he delivered before the American Institute of Instruction last year, we make the following extract:—

"Now that drawing is being taken up in earnest in this country, it is a matter of some consequence that we should begin right, and, rejecting those methods of teaching it which have failed elsewhere, adopt some rational system that is simple enough to be easily understood by all teachers, and by which all children may learn without difficulty

"It seems to me fair to proceed on the hypothesis, that, whatever children may be expected to learn, teachers may be expected to learn and to teach. By practical experiments on large classes throughout entire schools and cities, it has been demonstrated that physical or mental incapacity is the only obstacle which prevents children from learning to draw; and the capacity of teachers both to learn drawing and to teach it is thus proved beyond all question, being both physically and mentally capable.

"To succeed in drawing requires the cultivation, in a particular direction, of the understanding and the taste, and development of manual skill.

"In this process the adult has immense advantages over the child in that half of the faculty which is based on the understanding; and is at a disadvantage, comparatively, in all that depends upon manual dexterity, with the child. They are, therefore, about equally capable of learning, so far as capacity goes; and with both it is a question of willingness and diligence whether they shall draw well or badly.

"The matter of executive or manual skill need not trouble us much, unless we have arrived at such extreme old age that our senses are failing us, and our tendons are becoming bony. Our hands will no more refuse to express what the eye sees and the mind understands, than they will refuse to handle a knife and fork at dinner-time,—a catastrophe which does not frequently occur.

"That is a mere question of training; and the hand will always train faster than the mind. I sometimes hear this sort of statement from adults whom I am teaching: 'I know and see exactly how it ought to be; but I cannot do it.' Now, we may take it for granted that any part of a drawing which depends on manual power will be equal to the knowledge displayed; and therefore a remark such as I have quoted is usually an unconscious misrepresentation of the facts.

"For, to pursue the conversation, I shall say, 'Your lines are good enough for all practical purposes: but why reverse their positions? The broadest part of this vase is near the top, and you have made it broadest at the bottom.' The answer will probably be, 'Why, so it is! now, I had not noticed that before.' Which means that the poor hand had had nothing to do with the mistake. The eye had been accustomed to look, but not trained to see; and the understanding, which should have been leading the van, was far away in the rear; the general complaining that the battle was lost 'because of the inefficiency of that confound little drummer-boy.'

"The first thing to do in the teaching of drawing is so to arrange its exercises that they shall all be comparatively easy, and each be a preparation for the next. That brings us to the question of grading; what the children in each grade of school are able to do, and how it can be made a consistent part of a general plan, having definite objects to obtain, requiring nothing to be

unlearned as the student progresses, and leaving nothing unlearned that may be necessary for his advancement.

"I take it that the object of teaching drawing primarily is, that every person shall have accurate ideas on all matters involving a knowledge of form or color, and be able to express them by drawing the shapes of objects, or their tints, as readily as he can give their names, or distinguish one from another; secondly, that this power may be so generally acquired, that all trades, occupations, or professions, which, to succeed in, necessitate the ability to draw, shall be prepared for at school by every one, either to practise or to understand, just as learning to read and write prepares all of us for our elementary duties and callings, whatever they may be, so far as reading and writing are concerned; that we know enough of them to make all that depends upon them possible to us, if we are capable of attaining it.

"There are three ways of looking at the subject of drawing, — 1st, as a language; 2d, as an art; 3d, as a science.

"In the primary and grammar schools, drawing is to be regarded as a language for the expression of form with accuracy; and its acquisition should be as much a matter of method or a matter of course as learning a written or spoken language, and by a very similar process.

"Drawing has, for instance, its alphabet, — the straight line and the curve, — varieties and combinations of which compose the vowels and consonants of the language. Then it has its grammar, which controls, or rather explains, the art of representation; true drawing being in art precisely the same thing as grammatical expression in language.

"In the high schools, after a good foundation has been laid in the primary and grammar schools, the pupils may arrive at the practice of drawing as an art, in its most elementary stages; though it will be some time before sufficiently systematic training has been secured in the lower schools to make art-work possible in the high schools.

"We may, therefore, consider that the educational aspect of the subject of drawing in the graded public schools is that of a language, the speech of the eye expressed by the hand; and the experience we have in teaching a language will not only indicate to us what to teach, but how to teach drawing.

"If we wished to convey the idea of a square to another person, we must either pronounce the name, write the word, or draw the form.

"In each case we use our senses as a medium of interpretation; the spoken name appealing through the ear and memory, the written word through the eye and memory, the drawing through the eye alone, direct to the understanding.

"What is true of this symbol is true of all degrees of complexity in drawing, until we arrive at works of the imagination, so that the parallelism between drawing and language is direct enough to guide us in codifying the exercises of the former upon our experience in the latter."

As to the capacity of people, in general, to learn drawing, Mr. Smith speaks thus forcibly in his book entitled "*American Art Education*": —

"There are but four classes of human beings whom it is not found practicable to instruct in drawing. They are the blind, the idiotic, the lunatic, and the paralytic. Of the rest of mankind and womankind, exactly a hundred per cent can be taught to draw. The only real difficulty in teaching drawing to adults is found in the settled conviction in some people's minds, that they are incapable of learning. It is the only fatal hinderance; for, until that is removed, little progress can be made."

By this, we take it, Mr. Smith means that, just as all can learn arithmetic, though all cannot become distinguished mathematicians, so all can learn to

draw, though all cannot become distinguished artists. There are degrees of attainment in all things.

In his book on "American Art Education," Mr. Smith further says : —

"The ability to represent the forms of all objects with accuracy and readiness must inevitably result from including drawing in the education of every child ; and that is a very useful power to all. What we want is, that all kinds of elementary drawing shall be taught as a language, not as an art, and be used as an instrument, not as a plaything. Drawing treated as a language is a criticism made by ourselves upon our own knowledge, in which we either discover the depths of our ignorance, or express intelligibly the knowledge and ideas we have. Especially will drawing be found a ready handmaid to scientific study, illustrating its axioms, recording its phenomena, and explaining its laws. In the school-room, the danger is strenuously to be guarded against of allowing drawing to be practised for the mere purpose of producing pretty things. It should be regarded as a servant, or vehicle, to assist expression in the study of other subjects, as it is in geography, by means of map-drawing. Thus, I would not teach a class the art of flower-drawing as an accomplishment, but give it lessons in botany, and require the illustrations to be drawn to fix the principles of growth on the memory. By that means we should get accurate drawings, and the botanical knowledge would be an additional gain.

"In teaching drawing, from the very first, objectless and meaningless forms ought to be avoided as copies ; for they make no appeal to other knowledge possessed by the pupil, or which can be communicated. Thus it is as easy to give a class information about the historical details of architecture, by selecting type-forms of the different periods as drawing copies, as to give mere exercises in drawing, embodying neither history nor architecture. Fitting subjects of study in drawing and painting may be thus adapted to all the school ages, beginning with the lowest class in the primary school and ending with graduation at the university : during all of which time the study is to be regarded as the means to an end, and not the end itself ; the end being to see, to know, to remember, to reproduce, and finally to create : in other words, education. The time spent in practising drawing weekly need be no longer, and should not be shorter, than that given to other elementary subjects, such as reading, writing, and arithmetic ; and great economy of time in after-life will be ensured by the possession of a means of expression as ready as the tongue and more descriptive than the pen.

"The use of drawing in the workshop and office needs but little demonstration ; seeing that, without its skilful practice, many trades and manufactures and several professions cannot get on at all. And when we come to the practical business of every-day life in the shop, factory, and studio, we must substitute the more general word of art education, including drawing, painting, modelling, and designing, as the extent of art instruction required."

If we now examine Mr. Smith's drawing-books for public schools, published by James R. Osgood & Co., Boston, we shall then see what detailed application he makes of the general views expressed in the extracts which we have given.

The primary course begins with copies on cards for slate practice ; but before it concludes, it introduces the pupil to drawing on paper. The pupil having obtained a knowledge of lines and of certain figures in plane geometry, he proceeds to exercises which teach form, proportion, and principles of practical design for textile fabrics, surface decoration, pottery, and so forth. He learns how principles of design are derived from leaves, flowers, and the

like. But all the work in the primary course is not confined to two dimensions. Some practice is given in object and model drawing, with an explanation of those principles of perspective which are easily understood by children. The Teachers' Manual, which goes with the primary course, not only describes all the drawings and principles of design, but gives full details as to the management of classes. Similar manuals, containing all the drawings placed in the hands of the pupils, and many others for dictation lessons, go with the other parts of the course.

In the primary course, but little attention is given to fine finish; great stress is laid upon a knowledge of form, principles, and rapid work.

Drawing from flat copies is continued in the grammar course, with more elaborate illustrations of the principles of practical design than are given in the primary course. The historical element in art receives marked attention. The pupil having acquired a good degree of skill in free-hand work, begins to draw, with instruments, those problems in plane geometry which are of such value to artisans. Free-hand and instrumental drawing alternate now, the former to be done with rapidity, the latter with the utmost care. A twofold discipline is thus secured, giving both quick and precise execution. The instruments required are few and inexpensive; but they are sufficient both for geometrical and perspective drawing.

Object and model drawing and perspective drawing with instruments also begin in the grammar school. The former, done free-hand, involves principles of perspective, and so alternates with the latter, which gives free-hand and instrumental practice at the same time. By the object and model drawing the imagination is developed, and the pupil taught to "see in space," as it is termed, a power of great value to every one. As perspective is the representation of things as they appear, it lies at the foundation of the higher art culture.

The work is still based on geometry. The first objects and models represent artificial geometrical solids, and then follow natural objects which have marked geometrical features. Thus the pupil proceeds from the symmetrical to the unsymmetrical. Unless he can draw the former accurately, it is of little use for him to attempt the latter.

In the high school, the object and model and the perspective work is continued; but some provision is now made for special instruction. Those who expect to engage in any sort of building construction, as machinists, carpenters, masons, architects, take up mechanical projection and working-drawings. When thought best, this may be made an optional study, to a limited extent, in the grammar school, — to an extent that will enable the pupils at least to read a working-drawing, which so few workmen can do now. Others, having a more artistic taste, draw from the cast, ornament in relief, etc., — work which will tend to qualify them for artists or art workmen.

But a word must be said about certain things which specially distinguish Mr. Smith's course of drawing. It is based on geometry throughout. Greater importance is attached to a knowledge of principles than to mere mechanical execution, the object being to make originators, and not mere copyists. Thus

the text becomes a most essential feature. The symmetrical, which can be verified, is taken before the unsymmetrical, which cannot be verified. Hence, he does not begin with nature. The free-hand work is done rapidly, spirit and form taking precedence of purity of line. Dictation and memory exercises form an important feature. In the former, the pupil translates words, spoken by the teacher, into drawings; he must give the closest attention, must distinguish the exact force of language, and must first make a mental picture of what is required to be drawn. Hence comes important mental discipline. In the memory exercise, the pupil is required to reproduce something previously drawn, especially something of historical value. In this way the ability to remember form is cultivated, and the characteristic features of different styles of art are firmly fixed in the mind. Again: the drawings are all as beautiful as they can well be made. It is by looking at beautiful forms that the taste is developed. Much attention is paid to the historical element. The blackboard is used, mainly, for leading the class and explaining principles, not to provide the pupils with copies, as then each teacher would need to be an expert draughtsman, while only the few who sit directly in front of the drawing could see it properly; for all others the lines are distorted. The latter grave objection holds against the use of wall-charts, and so their use is forbidden in the best schools.

It is to be specially noted that Mr. Smith does nothing with light and shade in any of the earlier stages of drawing, and not much at any stage of the public-school course. Until form has been well mastered, time devoted to shading is worse than wasted,—it is positively vicious. The time spent in badly shading a single drawing is enough to enable the pupil to make a dozen drawings in beautiful outline. Previous to Mr. Smith's coming to this country, so much time was spent on shaded copies, that it was impossible to produce any results in the public schools that would be deemed satisfactory by competent judges. By this abolition of shading, time enough is saved for teaching design, geometrical drawing, and other important features.

Here we have five general departments of drawing in Mr. Smith's course,—flat outline, geometrical, object and model, perspective, mechanical projection. The books are intended to cover a course of eight or ten years, with two hours of instruction a week. As fine as the books are, the expense for each pupil, after leaving the primary school, is only from fifty to seventy-five cents a year, according to progress. Any one department can, of course, be taken by itself, though there is a logical connection between all.

GOOD *vs.* BAD EDUCATION.—“The essential difference between a good and a bad education is this, that the former draws on the child to learn by making it sweet to him; the latter drives the child to learn by making it sour to him if he does not. Yet how utterly has this plain and practical truth been ignored!”

LIBERAL EDUCATION OF THE NINETEENTH CENTURY.

[From a Lecture before the National Teachers' Association, by W. P. Atkinson.]

I RECKON five leading influences which are acting powerfully to modify all our old theories, and slowly working out a new ideal of liberal education: 1. A truer psychology, giving us for the first time a true theory of elementary teaching. 2. Progress in the science of philology, enabling us to assign their right position to the classical languages as elements in liberal culture, and giving us, in modern philological science, an improved and more powerful teaching instrument. 3. The first real attempt to combine republican ideas with the theory of liberal education — in other words, to make the education of the whole people liberal, instead of merely the education of certain privileged classes and protected professions. And when I say the whole people, I mean *men and women*. Nothing, I will say in passing, to my mind so marks us as still educational barbarians, so stamps all our boasted culture with illiberality, as an exclusion of the other sex from all share in its privileges. No education can be truly liberal which is not equally applicable to one sex as to the other. 4. As the influence more profoundly modifying our conceptions of liberal education than any other, I reckon the advent of modern physical science. 5. I count among those influences the growing perception that art and æsthetic culture are equally necessary as an element in all education worthy of the name. Let me give the few words, which are all the time will allow me, to each of these influences.

And, first, the advance we have been making towards a truer education-philosophy, based upon truer conceptions in regard to the growth and early development of the human mind, is pretty well disposing of what, perhaps, I may be permitted to call the old-fashioned grindstone-theory of elementary education; the doctrine, namely, that, as preparation for higher culture, all youthful minds require a certain preliminary process of sharpening upon certain studies, valueless or next to valueless in themselves, at least so far as regards the vast majority of their recipients; but quite as needful, nevertheless, to them as to all others who are hereafter to be considered as liberally educated, for the indirect benefit their pursuit was supposed to confer. The accepted theory of liberal education has heretofore been, that it was a certain very special kind of training which required this peculiar preliminary sharpening process, and that, as the instruments for it, there were certain almost divinely-appointed studies exclusively set apart, to wit, the grammars of two dead languages, and the elementary portions of abstract mathematics. It was not and could not be maintained that these studies would ever be the natural choice of the youthful mind in the beginning of its scholastic career; rather, it was thought to be a prime recommendation that they were as remote as possible from anything the youthful mind would of itself appropriate as intellectual nutriment. Like medicine, the value of such disciplinary studies was supposed to be in direct proportion to their disgustfulness; for they were not food to nourish the mind withal, but tonics, wherewith artificially to strengthen

it. They were rods for the spiritual part, the counterparts of those material ones which the strong right arm of the ancient pedagogue wielded with such efficiency on the bodies of his youthful charge, and the benefit of both alike was not utilitarian, but disciplinary.

That I may not be suspected of caricaturing, I will make a quotation from a lecture by Prof. Sellar, Professor of Greek in the University of Edinburgh: "The one extreme theory," he says,¹ "is that education is purely a discipline of the understanding; that the form of the subject is every thing, the content little or nothing. A severe study, such as classics or mathematics, is the thing wanted to train or brace the faculties; it does not matter whether it is in itself interesting or not. The student will find sufficient interest in the sense of power which he has to put forth in training for the great race with his competitors. 'It is not knowledge,' they say, 'but the exercise you are forced to incur in acquiring knowledge that we care about. Read and learn the classics simply for the discipline they afford to the understanding. You may, if it comes in your way and does not interfere with your training, combine a literary pleasure with this mode of study, but this is no part of your education. As teachers, we do not care to encourage it; we do not care to interpret for you the thought or feeling of your author. All such teaching is weak and rhetorical: we do not profess to examine into your capacity of receiving pleasure. Accurate and accomplished translation, effective composition in the style of the ancient authors, thorough grammatical and philological knowledge — these are our requirements. The training in exactness, in concentration, in logical habits, and in discernment of the niceties of expression, is the one thing with which we start you in life. Whether you have thought at all, or care to think about the questions which occupy and move the highest minds, is no affair of ours.'"

Here we have the very essence of what I have denominated the grindstone-theory. I think that a truer philosophy has exploded these fallacies, and well-nigh obliterated that artificial line of distinction between studies for use and studies for discipline. True education remains and must remain forever a discipline; but juster views in regard to the nature of the youthful mind are beginning to show us that that discipline is of the nature of a nutritive rather than a curative process, and that the disgust felt by the recipient for the means employed is no measure of their disciplinary value. We are discovering that the idea of discipline inheres, not in the nature of certain particular subjects, distinguishing them from all others which are non-disciplinary and merely utilitarian, but in the right method of teaching all subjects; and the question, whether at any particular period or stage of progress a subject is to be used for purposes of mental discipline, depends not at all upon the question whether it belongs to one or the other of two imaginary classes, the disciplinary and the non-disciplinary, but upon the quite different questions whether the study is valuable in itself, and whether it is suited to that particular stage of the pupil's mental progress. If so, and if rightly taught, it will then be sure to be the right discipline.

¹ "Theories of Classical Teaching: A Lecture," p. 10.

INTELLIGENCE.

PERSONAL. — Mr. Larkin Dunton is elected superintendent of the schools of Cambridge, at a salary of \$4,000. He has been head-master of the Boston Normal School since its separation from the Girls' High School; previous to which he was master of the Lawrence School, South Boston. His unanimous election to a position of such importance is a high testimonial of his reputation as an educator.

Mr. Minot Warren, of Medford, has been elected principal of the High School in Waltham, a position which has been searching for the right man for some months.

Mr. C. G. Pope, principal of the Bunker Hill School, Charlestown, has resigned, for the purpose of entering the profession of law.

Mr. Samuel J. Bullock, sub-master in the Prescott School, Charlestown, has been elected principal of the Bunker Hill School, as successor of Mr. Pope.

Mr. W. E. J. Varney has been appointed teacher of the Centre Grammar School, West Bridgewater.

Prof. Moses T. Brown has been appointed teacher of elocution in the Boston schools, for six months, with a salary of \$2,500.

J. B. Poole, Esq., of Stoughton, is elected sub-master in the English High School, Boston.

Ella M. Pattee, of Wakefield, has been elected assistant in the Peabody High School.

Mr. Alonzo Meserve, usher of the Bigelow School, South Boston, is appointed sub-master in the Prescott School, Charlestown.

Emily F. Fessenden, head-assistant in the Hancock School, Boston, for the past ten years, has resigned, because of failing health.

F. E. Sherman, of the Class of '73, at Amherst, is teaching the High School at Harvard, Mass.

C. N. Clark, of the same class, is assistant teacher in the High School, Brimfield, Mass.

At a meeting of the graduates of Amherst, at Minneapolis, Sept. 25, we see by the report that some gentlemen, well known by the teaching fraternity in our State, were prominent. Among them were J. F. Claflin, Esq., who was among the most active at all teachers' gatherings while he was in Newton. Mr. Claflin is now successfully engaged in business at Lombard, Ill.

Rev. E. Douglass, late Superintendent of Schools in Woonsocket, R. I., is now United States Indian Agent at White Earth, Minn.

Miss Mary H. Leonard, second female assistant in the Bridgewater Normal School, sailed for Europe on the 24th of December. She will spend the winter in study in Germany, and the summer in travel, returning to her work in Bridgewater in about a year. Few teachers would carry with them the cordial goodwill of more pupil friends than Miss Leonard.

Rev. W. G. Nowell, of the Malden High School, has been elected as sub-master in the English High School, Boston.

Mr. Fowle, sub-master of the Waltham High School, has resigned, because of ill-health, and is to travel South.

Mr. E. P. White is elected as Mr. Fowle's successor in the sub-mastership of the Waltham High School.

BOSTON. — Mr. Leonard, of Whittendon, and Mr. Seavey, of Saco, Me., are elected sub-masters of the English High

School. (For other appointments, see PERSONALS.)

Mr. David W. Foster succeeds Dr. Waterston on the Drawing Committee.

Miss L. M. Bean, teacher in the Lewis School, has resigned.

CAMBRIDGE. — Miss Humphreys, of the Washington Grammar School, has resigned.

Miss Annie E. Abrahams temporarily succeeds Miss H.

Letitia M. Dennis is appointed teacher in the Wyman School, at a salary of \$500.

CHARLESTOWN. — Miss A. E. Somes is elected assistant teacher in the High School.

Miss Louisa T. Swan is elected teacher in the Warren School. (For further changes, see the PERSONALS.)

MALDEN. — Mr. G. A. Littlefield succeeds Mr. Weston in the Centre School. Mr. Littlefield formerly had charge of the West School, but resigned last spring and fitted for Harvard, which he entered as a '77 man.

Mr. W. A. Wilde, formerly Superintendent of Schools in this town, has returned a second time from Europe, where he visited many of the art schools. He has offered to give to the town a set of models for each of the four Grammar schools, thirty pieces in each set, for the purposes of drawing.

Mr. O. B. Brown, leader of the Choral Union in Malden, has been appointed Director of Music in the public schools, and has already begun his labors, succeeding L. W. Mason, Esq., of Boston.

Two unfinished rooms in the Maplewood school-house are to be finished at once, and one of them furnished for use in the spring, in order to meet the de-

mands of this rapidly-growing part of the town.

A new school-house, with two rooms, has recently been erected in that part of Malden called Lincoln, which will soon be ready for occupancy, it is thought.

Mr. W. A. Nowell, formerly master of the Malden High School, has begun his labors in the English High School, Boston.

HOLYOKE. — G. W. Edwards, Prin. of the High School, has resigned.

Chas. S. Hemingway, a graduate of Yale, and recently Prin. of the High School at Bloomfield, N. J., has been elected to fill the vacancy.

CHELSEA. — The School Committee of Chelsea are now ready to appoint a Superintendent of Schools. Applications, *in writing*, with references and testimonials, may be addressed to C. A. Richardson, No. 1 Somerset Street, Boston.

NATIONAL EDUCATIONAL ASSOCIATION.

The Fourteenth Annual Meeting of the National Educational Association will be held in Detroit, Michigan, on the 4th, 5th and 6th days of August, 1874. The Governor of the State, the Mayor of the City, the State and City Superintendents of Public Instruction, and the Board of Education of the City of Detroit, have extended a very cordial invitation to the Association to meet in that place. Free use of assembly halls has been proffered, and every effort will be made to secure a successful and profitable meeting. Announcements concerning programme, facilities for travel, hotel accommodations, etc., will be made in due season.

A. P. MARBLE, S. H. WHITE,
Secretary. President.

BOOKS.

THE FRANKLIN READER: First, Second, Third, Fourth, and Fifth Parts. By Geo. S. Hillard and L. J. Campbell. Published by Brewer & Tileston.

The First, Second, and Third Parts of this Series have been prepared by Messrs. Hillard & Campbell; the Fourth and Fifth by Mr. Hillard alone.

The Primer, or First Reader, is adapted to existing modes of teaching, and, more especially, to the word method; or, as it might, perhaps, with equal propriety be called, the picture method. This we regard as the true method. The word being the unit of signification, the child's interest is enlisted from the very first step. Then the pictures, with which the words are associated, aid very much in deepening the impressions.

The old idea, that children must begin with the smallest possible combination of letters, — which was well enough for the alphabetic mode, — has been discarded; and the child begins at once to read something in which he is interested.

Pictures, which really illustrate the text, and which in this series are very beautiful, play an important part in the education of the child. He sees from the first that words are used as signs of ideas, — each lesson being but an analytical statement of what is given synthetically in the picture.

This, of course, is more strongly marked in the First Part than the others; but it applies to considerable extent to the first three, and, to some extent, to the Fourth Reader.

The gradual introduction of new words, and the regular gradation of the lessons, are marked characteristics of the series. The exercises in articulation and inflection, in the Second Reader, with the more difficult consonant combinations, and exer-

cises in emphasis in the Third, will be found of much service.

The exercises in vocal gymnastics, and the introductory treatise on elocution, by Prof. Bailey, are good in the hands of teachers who know how to use them; but, for those who have but little training in elocution themselves, we think there is danger that an attempt to follow the marking of inflections, etc., will impart a stiff, mechanical style not intended by the author. The fact is, that the modulations of the voice in speaking and reading are so delicate, that they can be but imperfectly hinted at by any system of notation.

This series, as a whole, we think far superior to the Hillard's series now in use. Mr. Hillard's name is a sufficient guarantee that the selections are in good taste; and, if we are not mistaken, they will be found more interesting to pupils for whom the several books are intended than those of the corresponding series which have been so extensively used.

TEN MINUTE TALKS ON ALL SORTS OF TOPICS. By Elihu Burritt. With an Autobiography of the Author. Published by Lee & Shepard.

The autobiography of the "Learned Blacksmith" will be read with interest and profit by the young and middle-aged, who will find much to inspire them to use wisely their spare moments. It is modestly written, and bears the impress of truthfulness on every page. His failures are recorded with the same directness and explicitness as his successes. Through all his "Talks on all Sorts of Topics," the same earnest spirit of philanthropy is manifest; and the perfectly unselfish spirit with which he engaged in any good enter-

prise cannot fail to win love and esteem. Strong as was his desire for knowledge, it yielded to his desire to improve the condition of the laboring classes, and to promote the highest interests of society and nations. Many a young man, upon reading this book, will begin the year with higher purposes and resolves.

PHYSICAL GEOGRAPHY. By Arnold Guyot, author of "Earth and Man." Published by Scribner, Armstrong & Co.

This we believe to be universally conceded to be all and more than it professes to be. The author calls it "an outline of Physical Geography," and says that "a text-book can be but little more than a skeleton," and that "to the intelligent teacher belongs the privilege of clothing these dry bones with forms of life and beauty."

Doubtless in the fulness of the author's knowledge, it appears so to him. We can understand something of the restraint he must have felt for want of room to tell more. But the arrangement is so perfect, and the "strict geographical point of view" has been so constantly preserved, that he has, perhaps, told us more than he is aware of. He has so let us into his method that we read "between the lines."

It is easy, with the material furnished us, and especially when aided by the numerous and beautiful maps and illustrations, to clothe the facts "with forms of life and beauty." It is not only a book for the school-room, but for every family. We may say also, what cannot be said of every really scientific work, that it is a favorite in the school-room.

we thanks of every educator in the country are due the author for this work, and to the publishers for the finished style in which it is presented.

THE ATLANTIC MONTHLY (published by H. O. Houghton & Co.) has become a necessity in every family with any pretensions to culture. It is so identified

with the house of James R. Osgood & Co. that we confess to some misgivings, when we heard it was to change hands. We are assured, however, that it is to be under the same editorial management; and the favorite contributors—Longfellow, Aldrich, Parton, Whittier, Howells, Warner, Owen, Holmes, Bayard Taylor, Wells, and Eggleston—will still pour their treasures into the "Atlantic."

The January number certainly promises well, containing four chapters of a serial, by Aldrich; "The Golden Wedding of Longwood," by Whittier; "Fox-hunting in England," by George E. Waring; "The Two Homes," by Bayard Taylor; "An Adirondack Sketch," by P. Deming; "Baddeck, and That Sort of Thing," by Warner; "Mose Evans," Part I, by Wm. M. Baker; "Theory and Practice of Local Taxation in the United States," by D. A. Wells; "The Last of the Valeric," by H. James, Jr.; "The History of the Two Pillars," by W. L. Fawcette; "Evolution and Permanence of Type," by Agassiz; and an "Old Year Song," by Holmes.

Whoever has read "Marjorie Daw,"—and who has n't?—or *sauntered* with Warner, will not miss this number.

The article by Prof. Agassiz, containing as it does the results of his life-long studies and his matured judgment on the Darwinian theory, will derive additional interest from the death of the great and universally lamented naturalist.

THE ELEMENTS OF LOGARITHMS: with an Explanation of the Three and Four Place Tables of Logarithmic and Trigonometric Functions. By James Mills Peirce, University Professor of Mathematics in Harvard University. Boston: Ginn Brothers. 1873.

Now that some knowledge of the theory and use of logarithms is to be required for admission to Harvard College, provision must be made for the study in the preparatory schools. Prof. J. M. Peirce has accordingly prepared the short treatise which is now before us. He intends the work chiefly for beginners,

but at the same time goes far enough into the subject to claim the attention of more advanced students. Such parts as are not needed by beginners are bracketed, and will cause them no trouble. The subject is set forth in a clear, concise, and interesting manner, and is well worth the attention of all who have this branch to teach.

This work is intended as a companion to the author's "Logarithmic and Trigonometric Functions," published two years ago.

SELECT ORATIONS OF MARCUS TULLIUS CICERO. With explanatory notes. For the use of schools. By Albert Harkness, LL. D., Professor in Brown University. New York: D. Appleton & Co.

The orations contained in this collection are the four against Catiline, the orations for Archias, the Manilian Law, Marcellus, Ligarius, and Deiotarus, and the first Philippic. They are edited and annotated with the author's usual care and ability. We thank him for the few pictures he has introduced, and beg him to give us more the next time. We believe in pictures, from the nursery up to the college.

A book of this class must stand or fall according to the character and value of the annotations; at least, teachers in search of a classical text-book look first at the notes. If these are unsatisfactory, no excellences of text or illustration will compensate for the loss. We are happy to speak a good word for Harkness's notes, both in his *Cæsar* and his *Cicero*. The latter we have a class now studying. Once in a while we have the hardihood to suggest a change in, or an addition to, the notes; but, in general, we find that the pupils get just about the kind and amount of help that they need and can use profitably.

COMMON SENSE IN RELIGION: A Series of Essays. By James Freeman Clarke. Published by James R. Osgood & Co.

These essays are certainly very interesting, and contain a great deal of "com-

mon sense,"—the test to which Mr. Clarke subjects all religions and all creeds. Of course, common sense is liable to the same shortcomings as Democracy, which is based on it; and, as Democracy has not yet given us an Utopia, we suppose that common sense will not, for some time, at least, bring about a millennium, when theologians "shall see eye to eye." Such books as this, however, breathing nothing but the highest and holiest purposes, and tolerant of everything but vice, will hasten it, even if its theology should prove in some respects unsound.

THE POPULAR SCIENCE MONTHLY, for December. Conducted by E. L. Youmans, and published by D. Appleton & Co., is a number of uncommon interest. It contains the concluding article of the series on the "Study of Sociology," by Herbert Spencer; "Furs and their Wearers," illustrated; "Correlation of Vital, with Chemical and Physical Forces;" several Chapters on "Hereditarity and Race Improvement"; "Tennyson and Botany;" "Preparations for the Coming Transit of Venus;" a fine portrait of Dr. Hooker, with an interesting "Sketch of his Life," and much other matter of interest.

PRONOUNCING HAND-BOOK OF WORDS OFTEN MISPRONOUNCED, AND OF WORDS AS TO WHICH A CHOICE OF PRONUNCIATION IS ALLOWED. By Richard Soule and Loomis J. Campbell. Published by Lee & Shepard.

This is a beautiful little book, fit to be made, and very fittingly made. It shows an accurate knowledge of English Orthoëpy,—a rare accomplishment, even among scholars,—and good judgment in the selection of words.

All teachers should have it; and every one will be benefited by it who wishes to acquire an accurate pronunciation.

We all trip on some words,—not unfrequently familiar words; and taking out those most liable to be mispronounced from the great lumbering dictionary, and

presenting them as we have them here, in a compact form, is a real service to us all. We hope it will have a large sale.

SCIENCE PRIMERS. Edited by Profs. Huxley, Roscoe, and Balfour Stewart. With illustrations. Published by D. Appleton & Co.

"The object of the authors has been to state the fundamental principles" [of science] "in a manner suited to pupils of an early age." By a simple series of experiments, they aim at imparting knowledge in such a manner as to discipline the mind to habits of orderly and accurate observation, and to scientific methods.

We have received three numbers of these primers, — one on Chemistry, one on Physics, and the other on Physical Geography. We think, judging from these, that the authors have been entirely successful in what they aimed at.

Most of the experiments can be performed with very little apparatus; and the directions are so very minute and clear that any teacher may perform them with success.

In this manner, if any, is science to be introduced into our common schools; and it is certainly an encouraging sign, when we see men like Huxley, Roscoe, and Stewart preparing Science Primers for the young.

The January number of "Lippincott's Magazine" contains: 1. The New Hyperion. — From Paris to Marly by Way of the Rhine. VII. The Seductions of Baden-Baden. Illustrated. By Edward Strahan. 2. The Trianon Palaces. — The Summer Residence of the Kings of France. Illustrated. By Marie Howland. 3. The Necklace of Pearls. By R. H. Stoddard. 4. A Wife's Revenge. A story. By the author of "Blindpits and Quixstars." 5. Japanese Fox-Myths. By William E. Griffis. 6. Chester Harding, the Self-made Artist. By Osmond Tiffany. 7. The White Doe: A Legend of Spanish Florida. A. D. 1540-1575. By Will Wallace Harney.

8. A Princess of Thule. Conclusion. By William Black. 9. Monte Carlo and its Frequenters. By R. Davey. 10. My Christmas Ball. A story. By Lucy H. Hooper. 11. A Statue of Shakespeare. By William R. O'Donovan. 12. Three French Marriages. By Mary E. Blair. 13. Our Monthly Gossip. 14. Literature of the Day.

This profusely illustrated magazine begins the year with a number of surpassing beauty, and a rich table of contents. The readers of the magazine for 1874 are promised contributions from some of the very best writers; and the fact that George MacDonald will commence a story in the February number will alone make it a necessity with those acquainted with his writings, or who heard his charming lectures while in this country.

THE ST. NICHOLAS. Scribner's Illustrated Magazine, for Girls and Boys. Conducted by Mary Mapes Dodge.

The arrangement by which "Our Young Folks" was merged in the "St. Nicholas" was at first looked upon with distrust by the boys and girls of our acquaintance. When, however, "St. Nicholas" came to them in its holiday dress, the vote was unanimous that the New York style was more becoming than the former, and they were more than reconciled to the change. From the numbers already issued, and the contributors, among whom we find Trowbridge, Warner, etc., we believe that the "St. Nicholas" is sure to be one of the most popular magazines for young folks of all ages.

It is certainly the most beautiful, and, from the names of its contributors, we believe it will be the best thing, of its kind.

OLD AND NEW, for January, 1874, is an excellent number. It contains a short article on the "Virginius," which is worth all we have seen on the subject elsewhere, and more. The first five chapters of the "Way we Live Now," by Anthony Trollope; an able article on "Wall Street, and The Crisis"; No. 2 of the Sketching Club by Tyrwhitt; "A Civil Servant," by E. E. Hale; "The Boston Tea-Party," by F. S. Drake; and other papers of interest, covering almost every department of literature.

STORIES OF A GRANDFATHER ABOUT AMERICAN HISTORY. By N. S. Dodge. Published by Lee & Shepard.

This will be found an interesting and instructive book for the boys and girls, to whom it is dedicated.

It is not unlikely that these stories may do more to awaken an interest in history than the more formal statement of facts, which constitute so large a proportion of the history lessons in many schools. Without, however, undervaluing the formal study of history, as a school exercise, it is evident that an acquaintance with the interesting stories add much to the interest of the more systematic recitation. When a grandfather is telling *his story* to the boys and girls, he is allowed a little more latitude than the schoolmaster; and, if he colors facts a little, perhaps there is as much gained in interest as is lost in accuracy.

It is safe to say that such reading as this will lead directly to a more careful and extended study of American history.

AN ELEMENTARY ALGEBRA. By D. B. Hagar, PH. D. Published by Cowperthwait & Co., Philadelphia.

This work bears the characteristic marks of the author's series of arithmetics.

The same clearness of statement is manifest, and the same natural arrangement; while the character of the exercises is such as to illustrate the principles under discussion, rather than an attempt to puzzle pupils with a difficult application of them.

In its method it is strictly inductive, and no definitions or rules are given till the pupil is prepared to understand them.

We think it a valuable contribution to our school text-books, as it not only presents the subject in a clear and concise manner, but suggests, also, the best methods of teaching, which are equally applicable to other subjects. This will readily be conceded by every one familiar with Dr. Hagar as a teacher.

THE TEMPERANCE DRAMA: A Series of Dramas, Comedies, and Farces, for Temperance Exhibitions, and Home and School Entertainment. By Geo. M. Baker. Published by Lee & Shepard.

Mr. Baker is extensively and favorably known as the author of a large number of plays that give great satisfaction to the young, in their performance, and to their elders, in listening to them. It is no small thing to add so much to the pleasure of the young at home and school, and

at the same time to indulge in no wit or humor which is not of the purest character, and to inculcate the highest sentiments. This book deserves, what it will have, a wide circulation.

ON THE AMAZONS; OR THE CRUISE OF THE RAMBLER, as recorded by Wash. Edited by C. A. Stephens. Illustrated. Published by James R. Osgood & Co.

This is one of the very best of the "Camping-Out" series, and that is enough to say to any one who has read the others.

Verily, the "boys" are fortunate in having enlisted some of our most interesting and instructive writers. They will not, however, have the monopoly of these books; for like all good "boys books," they are equally good for children of a larger growth.

The wit and humor, the keen insight into character, and the valuable information, will secure this volume an almost unprecedented popularity.

FIVE WEEKS IN A BALLOON. By Jules Verne. Published by James R. Osgood & Co.

Of all writers the author seems to possess the power of making the practically impossible seem probable. We certainly have had no such writer since De Foe. Having formed the wildest conceit, he proceeds to equip himself with facts, which, by a method all his own, he arrays in such a manner as to make his conceit seem real. "Five Weeks in a Balloon" could have been written only by one perfectly acquainted with all the explorations of African travellers, who could take a "birdseye" view of the country; and even then, it required more ingenuity and skill as a balloonist than any of our Atlantic navigators have shown, to keep it up so long.

The machinery was so perfect, and the description so in accordance with what we know of African geography, that we have heard it stoutly maintained that the remnants of a balloon recently found was not, as some supposed, one sent from Paris during the siege, but the veritable balloon in which our three travellers crossed the continent.

ELEMENTS OF ANIMAL PHYSIOLOGY, chiefly human. By John Angell. Illustrated with eighty-three Figures; and

FIRST BOOK OF GEOLOGY. By William S. Davis, LL.D. With one hundred and fifteen illustrations. Published by G. P. Putnam's Sons. For sale by Nichols & Noyes.

THE MASSACHUSETTS TEACHER.

[M. G. DANIELL, Editor for February.]

VOL. XXVII. FEBRUARY, 1874.

No. 2.

✓ *SEX IN EDUCATION.**

WE seldom buy a new book on education without serious misgivings. We have so often found what appeared to be new, so very old, and what promised to be fresh and piquant, so dry and vapid, that we have pretty nearly lost all appetite for that kind of mental aliment. Too often after such a banquet have we found ourselves like the hungry sheep described by Milton, who

“——— are not fed,
But swollen with wind and the rank mist they draw.”

In Dr. Clarke's book we looked for something better. The name and professional reputation of the author were a sufficient guarantee that the work would not be without significance, while the fact that it came from one who put forth no claims as an educationist gave promise, if not of new views, at least of views from a new standpoint. We have read the book carefully, and we thank the author with all our heart for writing it. Not that it is a contribution of facts before unknown; not that it deduces new laws; not that it establishes new principles in education: but because it gives definite form and expression to what, there is no doubt, lay vague and confused in many minds; because it rivets attention upon what was overlooked, and compels us to realize vividly

* *Sex in Education; or a Fair Chance for the Girls.* By Edward H. Clarke, M. D.
Boston: James R. Osgood & Co.

the tremendous importance of what we have passed by with careless indifference. It points out with clearness and force some of the consequences of our utterly reckless disregard of certain physiological laws, and sounds a trumpet note of warning for all who are not too dull or too obstinate to hear and understand. This is a sufficient justification for the appearance of the work, and this establishes for it some claim to our earnest and thoughtful consideration.

It is fortunate for an author, and, if his book be of real value, for his readers too, when it finds the public not merely ready, but eager to listen to him. The sale of five editions within three months, the private and public discussions on every hand, and the apparently increasing interest in these discussions, show that Dr. Clarke has hit the right moment for putting forth this volume. It is doubtful if the book would have been widely read five years ago; and five years hence it is to be hoped our eyes would have been opened, and the evils here pointed out discovered and in a fair way to be corrected.

And yet its appearance now is probably due rather to chance than to design. It was not because it was apparent that such a work would pay, but because the author's personal experience as a physician forced upon his attention the alarming increase of female maladies, and prompted him to study their cause, and, if possible, do something more to stay their wasting progress. We say that the book is eagerly read, and we have not to look far for the cause. The health of American girls and women has long been deplorably bad, and is steadily growing worse. Unless there is a radical improvement, the race seems in a fair way to die out. Within forty years there has been a decline of about twenty per cent in the proportional number of American children under fifteen, to the number of American women between the child-bearing ages of fifteen and fifty. It is probable that the proportional number of marriages among Americans has diminished; and it is well known to physicians that *the disinclination of American girls to marriage* is rapidly increasing. Perhaps it is right that this should continue, till a new epoch begins, and there is a better chance for "the survival of the fittest."

But there has been an uneasy feeling that something should be

done, and that a beginning should be made early. But where, and how? There was the difficulty. It is not too much to say that thus far we have only guessed and groped. Perhaps the most notable outcome of our efforts has been the invention of light gymnastics, "calisthenics," for girls, not suspecting that it is more rest and not more exercise for the body that girls are likely to need. It is to this question of the cause, or of the most potent cause of the ill-health, suffering, and decline of American girls, and its relation to education intellectual and physical, that . Clarke devotes the most important part of his work.

But there is another subject which is just now claiming a great deal of attention. Every year the demand for the admission of girls to colleges established for the education of men, is growing more importunate. If Harvard persists in its refusal, it may expect before long to be summoned to answer for its contumacy at the bar of the Supreme Court. Co-education has been resolved, by a large number of those most interested in education, to be not only good, but the best for both sexes. On this matter Dr. Clarke shows that physiology has something to say, and that if we refuse to listen to her, we shall do so at our peril.

In the two essays entitled "Chiefly Physiological" and "Co-education," is contained what is most valuable in the work before us. The remainder of the book consists of an introductory part, in which the results that are reached later are anticipated in a general way; a chapter in which seven cases are described which came under the author's professional care, and which give a practical illustration of the consequences of disregarding nature's requirements in the care of that function which is the most peculiar characteristic of woman's organization; and, finally, a brief notice of the more rational care exercised in regard to the health of girls abroad, with an admirable letter on the subject from a German lady, and another from Dr. H. Hagen, of Königsburg.

If we were asked what is the fundamental proposition of "Sex in Education," we should answer that men and women are not identical. It might seem hardly necessary to devote sixty pages to the proof and illustration of a truth so obvious, and yet it is a truth so often forgotten or disregarded, that we could not well spare anything from its terse and vigorous and striking demon-

stration in the work before us. How much would not the discussion for the improvement of woman's condition be helped by a vivid apprehension of the physical differences between the sexes that are brought out in these pages. If woman would attain to the highest development of her being, she must respect her organization, and cease the attempt to assimilate herself to man. But dissimilarity does not imply inferiority.

Again : —

"Man is not superior to woman, nor woman to man. The relation of the sexes is one of equality, not of better or worse, or of higher and lower."

"No microscope has revealed any structure, fibre, or cell in the brain of man or woman, that is not common to both. No analysis or dynamometer has discovered or measured any chemical action or nerve-force that stamps either of these systems as male or female. The inference is legitimate, that intellectual power, the correlation and measure of cerebral structure and metamorphosis, is capable of equal development in both sexes."

And finally : —

"Physiology confirms the hope of the race by asserting that the loftiest heights of intellectual and spiritual vision and force are free to each sex, and accessible by each."

But physiology asserts with equal emphasis that each sex must scale the heights of knowledge in its own way and in its own time. For the one it is best that the march, however slow, should be continuous and regular ; for the other, that it should be now hastened and now retarded.

In the nutritive and in the nervous system woman does not differ from man. There is the same organism and the same action; the same treatment is required, the same results are produced. But in the reproductive system the divergence is complete. Now, as bearing upon education, this divergence would have no significance in itself ; but in the light of physiological facts stated by Dr. Clarke, it becomes of the utmost importance. If, as he asserts, during the few years of a girl's educational life, from fourteen to eighteen or twenty, the rapid development, in this respect, which is the law of her being, uses up twice the force that is consumed in the case of the more slowly growing boy ; if in the marvellous mechanism of the one there is going on double the amount of physiological change in the destruction and creation of cells, that is taking place in the other, — change

on which life depends, nay, which is life itself,—is it not well, on the whole, to recognize a law so important in every view in our systems and methods of public instruction? Is it altogether reasonable or right to demand the same amount of brain-work during this critical period of the one sex as of the other? “The system never does two things well at the same time;” and if, while it is building up organs the most delicate, the most complex, and the most vital, you are doing your best to divert its force to the brain, you are violating reason and abusing nature, and your success will prove the measure of the penalty that will be exacted.

We do not care to follow Dr. Clarke through the long catalogue of diseases which are entailed upon women in part, or, as he maintains, in large measure, from wrong methods of education. It is enough that he has laid bare one fruitful source of terrible evils. He does not pretend that the school is alone at fault. Over and over again, with somewhat wearisome iteration, he either expressly states or obviously implies that he is pointing to but one though a very important cause of the deplorable health of American girls and women. We invite the reader to verify this statement, by referring to pages 22, 23, 25, 62, 117, 129, 130. And yet, in spite of the author's anxiety to avoid all overstatement, you will hear many persons charge him with absurd extravagance, and make him say the very thing that he rigorously refrained from saying. It is worth while to call attention to this point, because if the book fails of its just influence, it will be largely due to this kind of shallow and blundering criticism. What the author does assert, and what it seems to us he demonstrates, is that the number of those who are injured by unwise educational methods “is so large as to excite the *gravest alarm*.”

But this word “method” requires a little attention, for there seems to be some confusion in its use by the author. He says:—

“Boys must study and work in a boy's way, and girls in a girl's way. They may study the same books, and attain an equal result, but should not follow the same method. Mary can master Virgil and Euclid as well as George; but both will be dwarfed—defrauded of their rightful attainment—if both are confined to the same methods.”

This seems plain enough. But when two pages farther on he explains that, —

"It is not asserted that the intellectual process which masters Juvenal, German, or chemistry, is different for the two sexes,"

We begin to doubt, and inquire what precisely is intended. Later it becomes manifest that the meaning is, that besides diminishing the relative amount of brain-work for girls during the period of rapid development of which we have spoken, there should be some remission of labor during the catamenial week, while nature is imposing a double burden. The law of periodicity must be obeyed. It was, indeed, mainly to enforce the stern necessity of obedience that this book was written; and we implore every mother, as she values the health and happiness of her daughter, to read and ponder it well.

What the consequences of persistently disregarding this law are, may be seen in the third chapter. Of the seven illustrative cases cited therein, we observe, by the way, that one is taken from the stage, and another from the counting-room. We will not curiously inquire what these may have to do with education taken even in a very comprehensive sense. We are more interested to know how far the school and college were responsible for the loss of health in the case of Miss D——, who graduated at Vassar College, and who "in all respects appeared to be well, to her companions *and to the faculty of the college.*" Also in the case cited from Dr. Fisher of the second Miss A——, who "*was a fine, healthy girl in appearance,*" till she broke down utterly. As illustrations of the frightful evils resulting from taxing the brain and neglecting the body, they are very effective; and, so far as the schoolmaster and the professor exacted their tasks in spite of known physical weakness, they deserve execration. Doubtless the author would reply, that it is the system by which such cases are possible, that he reprobates. And in this there is force. But it is difficult to conceive what system of *public* instruction can be devised that shall obviate the chief difficulty, without seriously impairing the efficiency of female education.

Something, nay, much can and should be abated of the rigor-

ous requirements in respect to attendance and lesson-getting on the part of girls. Public exhibitions, medals, prizes, and all other such "aids to emulation," should be utterly and forever abolished. Teachers must be careful and kind; and whatever flexibility can be imparted to school courses of study should by no means be neglected. But still all these things will be of little avail, if mothers do not realize that they have a serious duty to perform. With them, after all, must rest the chief responsibility. Whatever reform may be found practicable in our school system and methods, when this problem is studied, as it must be studied, it will fail of effecting a material remedy, unless it is seconded by a great increase of intelligent, motherly supervision.

We have left ourselves but little space to examine the fourth part of Dr. Clarke's work, that on Co-education. But happily little is needed. This chapter is really a corollary to the second; and, unless some error can be pointed out there, either in his premises or in his reasoning, it is childish to deny the inferences stated here. Or, to put it more exactly, either Dr. Clarke cannot be trusted as a physiologist, or you must accept his fundamental propositions in regard to the identical co-education of the sexes. What some of those propositions are, will be seen by the following:—

"Identical education, or identical co-education of the sexes, defrauds one sex or the other, or perhaps both. It defies the Roman maxim, which physiology has fully justified, *mens sana in corpore sano*. The sustained regimen, regular recitation, erect posture, daily walk, persistent exercise, and unremitting labor that toughens a boy, and makes a man of him, can only be partially applied to a girl. The regimen of intermittents, periodicity of exercise and rest, work three fourths of each month, and remission if not abstinence the other fourth, physiological interchange of the erect and reclining posture, care of the reproductive system that is the cradle of the race, all this that toughens a girl and makes a woman of her, will emasculate a lad. A combination of the two methods of education, a compromise between them, would probably yield an average result, excluding the best of both. It would give a fair chance neither to a boy nor a girl. Of all compromises, such a physiological one is the worst: It cultivates mediocrity, and cheats the future of its rightful legacy of lofty manhood and womanhood. It emasculates boys, stunts girls; makes semi-eunuchs of one sex, and agenes of the other."

We find in the style and tone of the book, much to commend and little to object to. The style is clear and vigorous, if wanting somewhat in ease and finish. One characteristic which, in a literary point of view, is a fault, we do not doubt renders the

book more effective as a whole. We mean a very frequent repetition, not merely of thoughts, but of expressions. As we read, we cannot help thinking of the schoolmaster trying to hammer a few ideas into the brains of a rather dull class of boys.

The author has throughout spoken with great but not unnecessary plainness, and seldom in a way to give any offence. It is only when he attempts to be humorous that he uses expressions that seem a little coarse or unfeeling. The book gives so many proofs of being the work of a pure, earnest, candid, sympathetic nature, that we are sure that the slight blemishes to which we allude do not spring from the heart. We need not look any further for their origin than in a certain definite sense of humor. We should like to suggest to the author that in future editions he eliminate the similes of the bath-tub and the girl yoked to a dictionary, and also a note that closes with a quotation from Virgil; not so much for the inaptness of the quotation, as for an expression that, we are obliged to say, verges too closely on the indecent.

We commend the book most heartily to every one who is interested in the great questions which it discusses, to those of our own profession, and above all to the mothers of the land. We do not accept it without some qualifications, but we cordially welcome it as a valuable aid in the solution of a most important problem.

W. C. COLLAR.

*WHAT CAN BE DONE FOR THOSE WHO FALL OUT
BY THE WAY?*

SYSTEMS of education are common enough; indeed, like "the making of books," there is "no end" of them. New ones are continually brought forward; some of them the result of long experience and intelligent reflection, others evolved from the "inner consciousness" of somebody, whose utter ignorance of practical details is ludicrously apparent to every experienced teacher. Some of the former class will accomplish their object, as far as human imperfections will permit, provided they are followed out to the end. We think, however, that one complaint may be justly made against many of them, namely: that they do not enough

consider the case of the vast majority of scholars who never complete any course of study, but drop out along the way. We do not advance this as an original idea, but we do think it is too often neglected in the arrangement and discussion of courses of study. Now every one knows that of all the children who attend the public schools, but a very small per cent ever get as far as the high school. What is the best we can do for the great body of scholars who never receive any instruction after leaving the grammar school? Any system that fails to provide in some special manner for them is plainly defective. Could we have compulsory education, as it is understood and practised in most countries in Europe, the difficulty would, of course, disappear, as there could then be no dropping out by the way. We are afraid, however, that present indications are not favorable to the early adoption of such a system in this country. At any rate, compulsion amounts now, practically, to very little.

It is true that some programmes do not ignore the class referred to; notably our Boston programme, which, with special reference, we suppose, to the wants of these very scholars, has in its grammar school course some branches which were formerly reserved for that of the high school. As far as we have observed, however, this feature is very commonly spoken of, at least outside of educational circles, not as an excellence, but as a serious defect; and we hear quite often doleful lamentations about the "multiplication of studies" in these latter days; and men who were educated in the country sometimes give us graphic descriptions of the hardness of the benches and the general dilapidation of the old school-houses in which they learned more by "thorough" instruction in a few branches during three or four months of the year, than scholars nowadays learn, with all their extended curriculum, in ten months. It is nothing to them, apparently, that these scholars are enabled to look with intelligent interest on a hundred objects, and phenomena by which they are constantly surrounded, and of which they themselves were taught nothing at all; they could do "harder sums," and so consider themselves to have been better educated.

There is another fact which confronts us whenever we approach this subject,—a fact which is generally, and perhaps rightly,

kept in the background in this country, but which is nevertheless patent to all, namely : that a large portion of our scholars will, from the time of leaving school till the end of their lives, work ten hours a day at tasks which do not require, and will not tend to develop, much intellect. The few whose native vigor will impel them to study in spite of all obstacles may be safely left to themselves ; their force of character will inevitably carry them beyond the condition of mere workmen. It is not, of course, to be supposed that any American teacher fails to impress upon his boys the blissful uncertainty that hangs over the future life of each one of them, and to point to Benjamin Franklin and Henry Wilson as examples. Still, we all know perfectly well that but few of them will ever rise above the common level, for the simple reason that most of them are in no respect wonderful, and possess only ordinary powers. Certainly, every one who has tried it knows, that for a boy who is forced to work at manual labor ten hours a day, to devote his evenings to study requires an amount of vigor and resolution that falls to the lot of but few, and such as have it will, as we have said, take care of themselves. While we would omit no effort to induce all to become students, we would consider the question, What shall we do for those who, we know, will not ? As to disciplining their powers, which we are rightly told is the true object of education, there is no time for that. What can we do, then, better than to furnish them with the means of taking a little pleasure as they go along, to lighten and cheer the dull monotony of their daily life ; to give them something upon which their minds may rest with interest and pleasure while they are at work, and when their work is over ?

One way of doing this is to give such information as will multiply the number both of subjects and objects in which they will take an intelligent interest. For instance, the poorest boy can look when he pleases, provided it be dark and the sky be clear, at the stars. "What !" breaks out some startled teacher, "go into astronomy in the grammar school ?" No, not exactly ; we would not teach him to calculate eclipses or cometic periods, but suppose we tell him a little about Jupiter, — about his gigantic size, his wonderful belts, and their supposed cause ; his rapid revolution on his axis, and the consequent shortness of his day ;

his moons, his long year, etc. Almost any boy will be interested ; some will even be induced to read about it themselves, if the teacher takes care to point out the right books. Now and then one will find an 'hour of toil pass more quickly because he is thinking about Jupiter ; and depend upon it, not one of them but will look at him oftener and with more interest than before.

Then think of the vast field of thought, wonder, and conjecture which may be thrown open to even a young child by a little skilful teaching in natural philosophy. Explain to a boy, for instance, the steam-engine, and then watch him as he stands looking at one. His look is no longer one of open-mouthed wonder, or familiar indifference. He is making out whether "she" is a high pressure or a low pressure, and how her governor works, and wondering what would happen if her fly-wheel should burst, as his teacher has told him they sometimes do, — and trying to figure to himself how the inside of the valve box looks. Some of the tedious hours of toil will, you may be sure, be whiled away in thinking about the steam-engine.

History we believe to be one of the most efficient means of preventing a boy's mind from becoming vacant ; but it must be properly taught. Washington, *the deliverer of his country, and first in war, first in peace, etc.*, is not an object of great interest to the average boy, but Washington scanning through his glass the works on Boston Neck, and the British army beyond, and wondering how, with his motley and ill-appointed army, he shall get them out of the city ; or Washington dashing over the hill and through the flying troops up to the very muzzles of the enemy, swinging his hat, and cheering on the men at Princeton, *is* an object of interest to any boy. Let the history of the United States be taught with a judicious mingling of anecdotes like these, and many a time in his life will the laboring boy and man go over them.

We well remember one old committee-man in the country who used to quote to us, every time he spoke, the old saying — "It is better to know everything about something than something about everything." To a professor of chemistry it is doubtless better to know everything about chemistry and nothing about other sciences, than to have a little knowledge of all ; but for the aver-

age man, to whom his knowledge is simply a diversion and a solace, a little insight into a good many subjects, enough to arouse his curiosity and stimulate his thoughts, is, we believe, far more conducive to the end sought than a thorough knowledge of any one would be.

G. K. D., JR.

SHAKESPEARE IN SCHOOLS.

No apology need be offered for assuming that the study of Shakespeare ought to have a place in every scheme of high school instruction. Much might be said in favor of its adoption even in grammar schools, but the discussion of this point is from the purpose of the present paper. By the study of Shakespeare, very much more is meant than the study of disconnected extracts from his works. No one will contend that the well-known extracts from a few of Shakespeare's plays that find their way into the reading-books and compendiums can give any just idea of the author's powers as a dramatist, or of any dramatic action at all. They give but the merest glimpses of character. Extracts are but "specimen bricks," or at best, perhaps, specimen jewels, beautiful in themselves, but taken out of their settings.

There is, and always will be, a charm even to the schoolboy, in the speeches of Marc Antony and Brutus after the assassination of Cæsar. How much would their interest be enhanced by reading the whole of the play of Julius Cæsar, or at least the whole of the third act! A single careful reading of the play, even without note or comment, would so impress them with the situation that those speeches would be doubly interesting and effective. Much more impressive, too, would be Portia's "The quality of mercy," etc., if the reader realized to whom it was addressed and in what circumstances. It needs the whole Trial Scene to give it its due effect. Even the two short speeches that precede, —

Por. Then must the Jew be merciful.

Shy. On what compulsion must I? tell me that,"

At once give added point to what follows.

All this is not said to disparage reading-books and compendi-

ums. They are useful in their way, and even necessary. It is only claimed that the study of literature, and particularly of dramatic literature, is not complete without the study of connected wholes in distinction from disconnected parts.

There are many reasons why Shakespeare's plays should have a more prominent place in schemes of literary instruction than the works of many other authors who have hitherto almost wholly supplanted him. First because, in the words of Coleridge, they are "works truly excellent and capable of enlarging the understanding, warming and purifying the heart, and placing in the centre of the whole being the germs of noble and manlike actions"; because Shakespeare is "the myriad-minded; our—and all men's Shakespeare;" because —

"He was not for an age, but for all time;"

Because "he stands alone in the highest niche of literary fame"; because his dramas are "confessedly the greatest classic and literary treasure of the world."

Secondly, for the very reason that they are dramas, and hence appeal to an instinct that seems to be implanted in humanity itself,—the dramatic instinct. It is true, in more senses than one, that,

"All the world's a stage,
And all the men and women merely players."

The dramatic form attracts and rivets the attention of the reader, and impresses upon him the thoughts of the author with greater power than any other mode of writing can do. This instinct (if we are right in so calling it), or faculty, ought to be taken in charge and cultivated as other faculties are. If the best dramas were read and studied in schools, it can hardly be questioned that literary education would be much improved. Hitherto the wishy-washy dialogues of the boys' magazines and Sunday-school concerts, or dismal farces got up for an exhibition to raise a laugh and relieve the monotony of the heavy declamation, are pretty much all we have to show in the way of cultivating, this faculty.

Thirdly, because there is no better means for acquiring a correct knowledge and vigorous use of the English language.

Fourthly, since Shakespeare is pre-eminently the poet of nature, it is to Shakespeare we go for the study of nature in its human manifestations, confident that if we rightly interpret our author, we are indeed face to face with nature herself. Pope very truly says, "He is not so much an imitator as an instrument of nature ; and it is not so just to say that he speaks for her, as that she speaks through him."

"Nature herself was proud of his designs,
And joy'd to wear the dressing of his lines."

None of these reasons for the study of Shakespeare (and many more might be given) exist in so high a degree for the study of any other English author. Objections that are sometimes urged against this study are in general so groundless and trivial, that they need not be noticed here, except that which has reference to the occasional improprieties and indecencies that mar the text of some of the plays. This objection, however, is now removed by the recent appearance of several expurgated editions of the best known plays.

OBJECTS AND METHODS OF STUDY.

There are various ways in which the study of Shakespeare may be conducted ; and it is highly important that every teacher should have a definite aim before him, to which his methods of instruction must be skilfully adapted. Formerly an author was studied in school chiefly to be parsed. *Paradise Lost*, for example, used to be studied in parsing lessons of a few lines each, — a study of mere technical grammar, and nothing else. Latterly the tendency has been, perhaps, rather towards the philological study, — the study of words. Each of these methods has its value, but they should be used only as means to an end. A knowledge of the terminology of grammar is important and useful, in order that teacher and pupils may understand each other without circumlocutions. So of the philological study. It is interesting and profitable to study the history, derivation, and meaning of words. Some of this study is essential to the proper understanding of any author's text. It may well be made an end in itself at

some period of Shakespearian study, but not at first, and perhaps not at all in the high school course. Let the aim be rather to study character, the development of the drama, the why and wherefore of the various situations, and, in short, the thought and purpose of the author. Let other aims be subordinated to this.

To be a little more definite and particular, let us suppose a class about to begin the study of one of Shakespeare's plays. In the first place, let the pupils get as soon as possible a connected idea of the play as a whole. To this end it should be read through as quickly as the time given to each recitation will permit. Suppose one act be read at each lesson; five lessons, accordingly, will finish the first reading. At each lesson let the teacher make brief comments as the reading advances, keeping the pupils alive to the course of the plot, and the part each actor plays. They are now making the acquaintance of the various *dramatis personæ*. If time allows, a second reading pursued in the same way and with the same general object in view would doubtless be very beneficial. Now they are prepared to go into a closer study of the text. What should be the main object in this part of the study? First, to understand the text thoroughly; and second, to read it understandingly. The former object will require the use of such notes and explanations as the best annotated editions give. Rare and archaic forms and uses of words are to be explained; obscure and involved sentences must be analyzed. And so we might go on; but these directions are needless to any intelligent teacher, and we will not multiply them. The second object, reading understandingly, needs to be strongly emphasized, for there is great danger that the accurate delivery of the text may be lost sight of in the study of its meaning. This mistake is frequently made. The grand test of a pupil's knowledge of the meaning of a passage should be not so much his ability to explain it as his ability to read it well. He cannot read it well if he does not understand it. If he does understand it, he can read it at least tolerably well. Setting aside all stage effects, and even such action as the public reader may indulge in, the mere pronouncing of the lines with appreciation and feeling may be looked upon as the fruit of the very best kind of training, and as indicating a knowledge of Shakespeare that it would take many a written

examination to bring out. In ignoring stage effects, and above all, stage rant and mouthing, and "sawing the air with your hand," and all that sort of thing, the expression of feeling should not be ignored. To give a natural and truthful expression to the thoughts of the author, one must in some sort transform himself into the character whose words he is reading, and into the particular mood of the occasion. King Lear calling down fearful imprecations upon his recreant daughter, or holding discourse with the angry elements; Hamlet moodily soliloquizing on death and immortality, or talking playfully with the actors, or out-ranting Laertes at Ophelia's grave; Lady Macbeth bravely urging her too reluctant husband to do the deed of blood, or pitifully bewailing in her sleep the blood-stain on her hand — what an infinite variety of vocal expression — setting aside all mere outward gesticulation — is required to read these parts naturally and truthfully! And when we think of Iago, Othello, Desdemona, and Roderigo; of Portia, Shylock, and Gobbo; of Prospero, Miranda, and Caliban; of Constance, of Rosalind, of Queen Anne, of Hermione, of Isabella; and, in fact, of every conceivable type of humanity, and every conceivable mood of thought, feeling, and passion, it may with truth be said that to know Shakespeare is to have a liberal education; and that to be able to read Shakespeare well is an accomplishment that is worth the expenditure of much time and pains to acquire. This work can, of course, be only begun in the high school; but unquestionably it should be begun there, and so far and so well carried on as to inspire the pupils with a love of Shakespeare, and induce them, if possible, to make him a fireside companion after their school days are passed. But few of the plays can be thoroughly studied in the high school course; but it is earnestly recommended that several of the best and most generally known and quoted should be read in the rapid way spoken of above, in order that pupils may know something of those characters that have a better right to live in their memories, — that are more worthy of their study, although they are mere creations of the poet's fancy, — than many of the historical personages that claim a large share of their attention in school.

BOTANY.

"Now is the time," as the almanacs say, to be making preparations for the spring Botany classes. Before the first flowers come, a few weeks of preliminary instruction are desirable in order to prepare the pupils for an intelligent study of them as they appear; and by "forcing the season" in your school-room, you can get objects for examination before they appear in the natural course of things.

A number of boxes or pots of earth should be kept in the school-room. In these plant liberally various kinds of seeds for use in the class at different stages of their growth. Beans, peas, corn, morning-glory, and onion seeds are very good for the study of germination, the cotyledons, and the young plant. Let enough be planted for each member of the class to have a specimen of each seed when it begins to sprout, and again after the radicle and plumule are pretty well advanced, reserving a few for the purpose of watching their growth all through the term.

If you forgot last season to lay in a stock of dry seed-vessels, send boys to search for them now, or as soon as the ground is clear of snow. They may find a good many on the ground or still clinging to their stems. Pupils will be much better able to study the ovaries of growing flowers if they have first seen and studied them in their full development. In fact, the study of ovaries ought to be taken up in the fall when ripened fruits are plenty and easy to get.

In the early spring, maple seeds may be found in large quantities, their cotyledons beginning to unfold and break through their coverings. Let some be gathered for use in the class, and let others remain on the ground to be watched and reported on as they progress. Sprouting acorns, too, are easily found, and are an interesting object of study. Only set the pupils to searching, and they will find a great many things that can be made available at this early period of the study.

Before specimens from the field and forest become very plenty, time may be profitably spent in laying in a little stock of book-learning. Some knowledge of the commonest technical terms, learned from the book and the illustrations in it, will save

much valuable time when you want to devote yourself chiefly to the study of the living plant.¹ It is too much the fashion to affect to despise information that is got from books and pictures, particularly in the various departments of natural history. The text-book, however, may be made a very valuable adjunct to the object-lessons, not only now, but at every stage of our study. Let it be used judiciously and no harm will follow.

Don't allow the first flowers of spring to come and go without putting in an appearance in the school-room. Violets of one species or another there will certainly be enough of, for they are very abundant; so of anemones, buttercups, marsh-marigolds, saxifrage and dandelions, and all the conspicuous flowers that grow abundantly and continue in blossom a good while. The beautiful hepaticas will all have disappeared before you are aware, unless special search be made very early.

If your pupils become enthusiastic in collecting, — and it is no difficult matter to make them so, — there will never be any lack of plants for examination in the class, but, of course, they will come without any order or system. A dozen or a score of different orders and genera may be represented in the findings of an afternoon's walk. It would be convenient for our purpose if Nature would adopt for her guidance some good manual of botany and bring forth her plants by orders and genera, one after another, according to the book; but that is not Nature's way of proceeding. A good many specimens will be brought in that are too hard for beginners to get much good from. (It will be seen that we have in mind all the time a class of beginners.) Let such specimens be passed by with brief descriptions from the teacher. There will be quite enough that can be profitably attended to.

Direct the pupils to gather individuals enough of a kind to give at least one specimen to each member of the class; provided, however, that the plant in question is found in large quan-

¹ Pictures are a great help in the study of plants. Prang's charts of Natural History, or Henslow's diagrams, are exceedingly valuable in various ways. Magnified and colored representations of what the pupils find it hard to make out in their green specimens are a great aid. In classification, too, the charts will supply many missing links that the collections on the table fail to furnish.

tities; otherwise there is danger of exterminating some rare species. Collectors should be frequently cautioned never to pluck all the flowers of a kind in one locality.

An important object of search (mentioned above) is the ripened fruits of those plants whose ovaries do not come to maturity till long after the flowering time.

Have some simple means for drying and preserving plants, and in the course of several terms a very respectable school herbarium will be collected. A large quantity of coarse paper that will absorb moisture readily, a board, and two or three heavy stones, will serve a good purpose. For preservation, the specimens may be fastened by glue or thread or adhesive paper to the leaves of old Patent Office Reports or superannuated atlases, unless you can go to the expense of a sheet of nice white paper for each specimen.

By the end of the summer term it is to be hoped that the class will be able to describe the parts of a great many plants, and refer them to their orders and genera; that they will know a great many interesting and useful facts about plant life; and, above all, that they will have acquired or developed a love of the study, a love for plants, and a love of nature.

WE are requested by one of our oldest and best teachers to copy the following from the Chicago "Teacher." We don't know his reason for this request, but if any one is hit, it is not our fault. We copy it just to oblige an old friend:—

"It is wrong for teachers in large schools to stand in knots and chat and laugh while the children are passing up and down. The example is bad; and it is, moreover, a fact, that teachers in chatting make more noise than that which they come out into the hall to prevent, would amount to."

WE have received a very able and interesting article from Mr. Whitney, of the Cambridge High School, on "Agassiz as a Teacher," which we are compelled, by want of room, to postpone to our next number. Mr. W. was well acquainted with the great Professor, had worked under him, and was a student in the school at Penekese. The article will be read with much interest by all, and especially by teachers.

"HINTS on Teaching English Literature," by A. T. Blaisdell, will also appear in our next.

RESIDENT EDITOR'S DEPARTMENT.

THE MASSACHUSETTS TEACHERS' ASSOCIATION.

Reported by Wm. Butler Crittender.

AT the last meeting of the Massachusetts State Teachers' Association, held at Worcester, a resolution having been introduced of respect to the memory of the late Prof. Agassiz, Rev. H. F. Harrington, superintendent of schools in New Bedford, after seconding the resolution, made the following interesting and eloquent remarks: —

I should not venture, Mr. President, to say anything of such a man as Agassiz, had I not been specially requested to do so.

I knew him, only as many in this assembly knew him, — on terms of simple acquaintance. And yet to every one who had met him even once only, how near he seemed. — how like a very brother. Never lived there a human being, it seems to me, who so united the godlike in intellect with the simplicity of a little child; who so confidently brought down that immeasurable capacity of a great nature, and put it into your keeping without reserve, so that he led you to feel almost like an equal as he stood before you; and yet how grandly he towered above us all!

Mr. President, this Association has reason to remember Prof. Agassiz reverently and affectionately, for reasons which are not known to all of you.

The last time I met him was at a meeting of gentlemen and ladies held in Boston on the first Tuesday in November. These gentlemen and ladies constitute a committee, which has existed for several years, having for its purpose the improvement of our public schools; and so devoted was Agassiz to this important object, so determined was he to lend the weight of his ability and his energies to the cause, until certain striking defects which annoyed him should be remedied, that he never failed to be present at the stated meetings of this committee when he was in the vicinity. In the month of November, as I have said, he met with us for the last time; and in response to a remark, made soon after his entrance, and expressive of gratification at his presence, he said, "I thank you. Nothing except my strong interest in the object of these meetings would have availed to bring me here. For I am very feeble, and I did not dare to come until I had been to my physician to ask permission. He gave me leave to come, on the condition that I would not open my mouth. So I am here."

But, in spite of his pledge and his sense of weakness, he could not restrain himself. He joined in the discussion as frequently and as earnestly as any; and when at length something was said in praise of the Prussian governmental "Regulativ" of 1854, by which the schools of Prussia have been controlled up to nearly the present time, he was stirred to an unwonted degree.

He rose to his feet, and with animated gesture, in that eloquent simplicity of apt and pointed expression for which he was so eminently conspicuous, he denounced the "Regulativ" as wholly unworthy of confidence. He declared it to be the offspring of tyranny, intended not to educate and develop the intellect of Prussia, but, on the contrary, to fetter and degrade it, and make it the passive slave of arbitrary power.

Doubtless the most of those whom I am addressing have listened to the public utterances of Agassiz often enough to remember with delight the exquisite eloquence of his language. I never heard him when his selection of words was choicer, his heart fuller, his gesture more emphatic and expressive, and the impression he made deeper, than on that occasion.

Before the meeting closed, after having held a few moments' private conversation with him, I expressed my regret at his description of his physical condition. "It is very true," he replied. "I have no strength, no energy whatever. I have labored through the summer when I should have been resting; and I am good for nothing. I shall have to give up my engagements to lecture; and even then I must go into my winter's work in this weak and incompetent condition."

And yet, within a fortnight of that time, he delivered an elaborate address before an agricultural society in Fitchburg, and threw himself into the labors of his beloved museum without the slightest self-indulgence, and with all the devotion of his enthusiastic spirit. No weakness, no suffering could restrain him from offering up his daily oblation at the shrine of that glorious science, which was to him such a shining divinity. In her service, he was ever ready with all his powers, both of mind and body; and he perished gloriously with his harness on.

There are those who have denounced Agassiz, in common with other conspicuous scientists, as an atheist. And yet, at the very moment when these charges have been most rife, he has been standing in the forefront of the opponents of Darwinism, because he reverently ascribed the production of the human race, in its present loftiness of capacity and attainment, to the immediate creative energy of the living God.

Those who were present at the opening of the Anderson School of Natural History on the island of Penikese, — and I know that several of them are among my hearers, — will bear testimony to the emphatic manner in which he manifested his faith in God on that occasion. It was my good fortune to be there; and, since Agassiz has been severely attacked because he did not inaugurate that undertaking with formal religious exercises, as his failure in that regard has often been cited as an indication of the atheistic and irreverent tendencies of the scientific mind, I know you will be interested in a brief description of what actually occurred.

Those who were to constitute the school landed at the wharf of the island from the little steamer which conveyed them from New Bedford; and, while the attendants were disposing of their luggage, they went to inspect their future quarters. They soon came upon the only building then erected for the use of the students, and found it but half finished, the beds crowded to-

gether in two long rows, like the beds of an extemporized hospital, the winds of heaven free to rush in through the gaping apertures where windows were sometime to be, and the sexes separated from each other only by a partition of cloth.

They were, in sea phrase, "taken all aback." A blank look of disappointment and anticipated privation took possession of their countenances ; and when, in the course of half an hour, they assembled for the inaugural exercises in an old barn, in which the beams and rafters were all visible, spider-webs the only ornamentation, and the swallows, whose nests were up in all the corners, flying freely in and out, the sense of anxious foreboding was evidently intensified.

The professor entered and took his station beside the little table which had been brought in for him, and on which was only a vase of flowers. His wonderfully expressive face was lighted up with unusual intelligence and emotion. After a few simple words of greeting, uttered in a tone and with a manner so laden with a sense of the importance and promise of the occasion as at once to reassure every perplexed and sinking spirit, he said : —

"We are yet too little acquainted with each other to be able to have any one speak for us. Therefore I cannot ask any one to pray for us at this time." Then, in a sudden outburst of irrepressible emotion, he added : —

"Indeed, I could not have any other person pray for me under these circumstances. I must pray for myself ! Let there be a short season of silence, while each one, for himself, is asking a blessing."

His voice grew tremulous as he went on ; and, when he closed, his broad, manly breast was visibly heaving with the power of his emotions. His lips quivered, great tears fell from his eyes, and thus it was that he lifted up his soul to God for the consecration that I trust will ever rest on that enterprise so dear to his heart.

Thus did Science express its reverential dependence on the great Author of all things. I have been in many a scene where silence was impressive, but never was I more deeply thrilled than during the silence I have just described. The great man's bearing, while he raised to heaven his voiceless aspiration, tended to inspire and uplift all hearts. And when, afterwards, he said that he should make no apologies for the imperfect state of their preparations, for, after all, "never was there an attempt at original investigation begun under such admirable advantages," and then detailed some of the privations which he had personally undergone to acquire the knowledge which he hoped to impart to his scholars there, — sleeping seventy-two successive nights with only the icy glacier for his bed, he won all hearts. He removed every vestige of discontent. He filled every breast with the fire of devoted resolution, — a portion of the same enthusiasm which has led him so grandly on.

Such was Agassiz : the friend of science, the friend of American public schools ; earnest in their service, and giving some of the last hours of his precious life to thought for their improvement. Well may we, my fellow-teachers, remember one who was never forgetful of us.

THE TWENTY-NINTH ANNUAL MEETING
OF THE
MASSACHUSETTS TEACHERS' ASSOCIATION

Was held at Worcester, in the Hall of the High School Building, on Walnut Street, December 29, 30, and 31.

OPENING SESSION — MONDAY EVENING.

The Convention was called to order at half-past seven o'clock, by the president, Albert G. Boyden, of Bridgewater; Alfred Bunker, of Boston, being recording secretary. After opening remarks from the chair, the delegates, comprising a large number of superintendents, principals, and teachers from all parts of the State, were welcomed to the hospitalities of the city by superintendent A. P. Marble.

On motion of John D. Philbrick, of Boston, a committee of three, consisting of Mr. Philbrick and William C. Collar, of Boston, and D. B. Hagar, of Salem, were appointed to consider what action is appropriate in view of the great loss sustained in the lamented death of Professor Agassiz.

On motion of M. C. Stebbins, of Springfield, a committee of three, consisting of Mr. Stebbins, B. F. Tweed, of Charlestown, and Charles Hammond, of Monson, were appointed to prepare appropriate resolutions in reference to the death of Professor William Russell.

The president suggested the propriety of presenting resolutions relating to the late Marshall Conant, former principal of Bridgewater State Normal School. The matter was referred to the last committee, and, on motion of A. P. Stone, of Springfield, the president was added to said committee.

Messrs. A. P. Marble, of Worcester, and George A. Walton, of Westfield, were chosen a committee on teachers and teachers' places.

The chair was instructed to appoint, and announce this morning, committees on resolutions, nominations, and subscriptions to the "Massachusetts Teacher."

The Rev. A. D. Mayo, of Springfield, a native of Massachusetts, but for many years a resident of Cincinnati, Ohio, distinguished for his devotion to educational interests, was then introduced, and gave an able and eloquent address on "Normal Schools and Training Schools and their Graduates." After allusion to numerous statistics given in the last annual report of the State Board of Education, to show the necessity of skilled labor in school-teaching, Mr. Mayo said there are four State Normal Schools now in our State, with an attendance, in 1872, of six hundred and eighty students and one hundred and sixty-one graduates. "When we consider that a portion of the superior young women among those graduates leave the State, that others are soon carried off into private schools, and that the destiny of woman in the school-room in Massachusetts is fixed, at the end of four years, we are left with the impression that, even with the added help of a few city training schools, and a vigorous system of school institutes, the great mass of our teachers are almost destitute of any professional training that deserves the name. Is it, then, he asked, too much to say that the central point of educational interest, even in this enlightened Commonwealth, to-day, is *skilled labor in the school-room*? Indeed, next to the moral and religious status of the people, this is now the paramount American interest. All progress in the national common school now hinges upon a more efficient method of training the young women, who, for many years to come, must be the teachers therein. All our other improvements amount to nothing until we can place at the centre of all our machinery for school instruction a body of teachers competent to handle it. If we expect to verify the superiority we now claim for the common school before the whole people, we must bestir ourselves at once in a wholesome reconstruction and expansion of our methods of training, especially the

young women of the State, for the noble profession of teaching. The speaker thought the wisest and most successful of our principals in the Normal and Training Schools of the State would agree with him, that our present system of supplying trained teachers is becoming every year more unsatisfactory. It would certainly seem that if only six hundred and eighty students (not half the number of the undergraduates in some American colleges) are admitted yearly to our four State Normal Schools, they should be subjected to a more severe examination, and a far better preparation. The weak point is, he thinks, that, spite of themselves, these excellent schools are far more academical than professional institutions. He thought it time that the provisional character of our State Normal Schools should be changed to a type more severely and strictly professional. Surely, from the one hundred and eighty-one high schools, and four hundred and twenty-eight academies of the State, a class of young women can be found competent to face a severe examination for admission to normal schools, that shall be really universities of teachers. He believed that, with the number of pupils, thoroughly trained, these schools would do more valuable service than now. We must abandon the hope of furnishing a large body of teachers for common schools from those State institutions. But they may aspire to elevate the whole professional teaching class by the production of a body of highly accomplished teachers, capable of handling training schools and doing valuable work in the highest department of instruction. Every graduate of this description would become a power for reform. The American city training school is the most admirable result of our native genius in educational affairs, and is capable at once of furnishing the schools of all cities and large villages with a greatly improved class of teachers. By a generous system of admission from the country adjacent to our city and town high schools, their usefulness can be greatly enlarged; and by a wise handling of the School Institute, we may hope, in time, to reach and make an impression upon this dissolving view of 8,000 common school teachers of the Commonwealth.

Mr. Mayo said the first element in every training school for young women is womanly enthusiasm for the profession. He thought that whoever takes away a training school for primary and grammar teachers from the motherly and sisterly charge of a competent lady principal and her group of critic teachers, destroys the soul of the institution, bungles the work in its point, and produces essentially another style of graduate. And may God help any school, he said, normal or otherwise, that is laced up in the stays of our new masculine theories of materialistic "secular" culture. These theories all have one common characteristic; they ignore the whole spiritual side of human nature; that contact with God and the world of souls, without which our contact with physical nature is very like one stone lying upon another. There was no reason, he said, why the graduate of the normal school should not grow more healthy, wise, genial, practical, powerful, and thoroughly charming every year of her life; and, when she is called to woman's common destiny in the home and society, she enters it from a vantage-ground she need never lose. No profession has furnished so many first-rate women to society and domestic station in America as school teaching. What may we not hope, in the future, for the enriching of the American home, for the building up of every precious interest of national life, from groups of women like the superior graduates of our best normal and training schools? The State can well afford to give them this education and experience, in view of their future services to American society in the common relations of life. The speaker closed by an eloquent allusion to the happy influences which had arisen from the teachings and efforts of the multitudes of female teachers who, during the last thirty-five years, had gone out from New England to the great West, where he himself had been located after a boyhood and youth passed amid the common schools of the heart of this old Commonwealth, — happily contrasting the past with the present state of things, and trusting for more advanced results

in the future, by a more progressive and advanced method of instruction in the proper training of the lady teacher for her work.

After the delivery of Mr. Mayo's address, which was listened to with the greatest interest, remarks commending it, and favoring the training of female teachers as the most efficient instructors of our youth, were made by Messrs. Philbrick, of Boston; Marble, of Worcester; A. P. Stone, of Springfield, and others.

Mr. Philbrick announced the presence in the Convention of Mrs. Ware, a delegate from the Woman's Educational Association of Boston, and, by vote of the Association, she was invited to participate in the discussions of the meeting.

TUESDAY MORNING.

Rev. Mr. Wood, of Campello, opened the session with prayer.

Mayor Jillson, in a brief and pertinent address, said: "You have assembled on this beautiful winter morning to forward a great work. Your efforts need to be crystallized into law. Our statute books are filled with laws forbidding men to do this and that, but there is not one word to compel men and women to become intelligent. We must have compulsory education." The Mayor closed with a cordial welcome to the hospitalities of the city.

The president returned the thanks of the Association for the Mayor's welcome, and announced the following committees:—

"The Massachusetts Teacher"—H. F. Howard, of Newton.

On Resolutions—Granville B. Putnam, of Boston; George A. Walton, of Westfield, and Edward I. Comins, of Worcester.

On Nominations—A. P. Stone, of Springfield, and thirteen others, one for each county.

DISCUSSION.

A discussion was then commenced on the subject, "Would the interests of education be promoted by increasing the relative number of male teachers in our public schools?" introduced by A. P. Stone, Esq., superintendent of public schools of Springfield, who took the affirmative. He said, among other things, that the fact that women can teach primary schools better than men, is granted. There are schools which men can teach better than women. He advocated the services of both in shaping the moral and intellectual character of pupils, just as the influence of both father and mother are needed in bringing up a family of children.

Mr. Allen, of West Newton, said the proportion of male to that of female teachers is too small, and a change should now begin to be the other way, and gentlemen should come in and occupy many of the places held by women, because nineteen out of twenty young women who enter into the occupation of teaching do not do so with a view of making it a life-work. They do not study, he thought, with the view of rising higher and higher. The truth being that women intend to teach but a comparatively short time, they do not therefore prepare themselves to teach in the high schools. Every girl should come directly in contact with the mind and character of a competent gentleman teacher, and boys are very much softened by the influence of a lady teacher. Throughout our district schools, the idea that there is not money enough to employ gentlemen teachers should be dispelled.

Mr. William Collar, of Boston, said there should be an increase in the number of male teachers, because of the short time the young women teachers continue in service. The time devoted to preparing their minds and hearts for teaching is much too short. Another reason is, that women are less devoted and earnest as teachers than men, owing to the short time they intend to remain in that service. Women have less learning than men and less time to learn, one reason being the time they necessarily have to devote to sewing. Women have less nervous energy and physical force. It might at first seem that the increased expenditure that would be necessitated by the

employment of more men would be an objection. But this, he maintained, was a mistake. The history of education in Connecticut proved this. There, through the efforts of Mr. Philbrick, to whom that State should be everlastingly grateful, a law was passed obliging towns to levy a tax to support the common schools, and a revolution was wrought in public education. Interest succeeded to apathy, and to-day the schools of Connecticut will compare favorably with those of other New-England States.

Mr. Hagar, of Salem, said lady teachers who get married would fail to do their duty if they did not. If the schools are to be raised to the highest standard, they should have at their head those who intend to make it a business for life. Let as many as possible who teach in the schools be trained as well as possible, and then be under the direction of a head who will make it a business. He thought women teachers, as far as he knew, are as earnest as men are. Mr. Collar's point, that women have to devote much time in sewing, he met by saying that the reason men do not do the same is, that they do not know how, and if they did, they would not do it, because they are paid enough to get it done for them. Women should be paid more for their services as teachers, and should be afforded every opportunity to acquire education. The cases are just as frequent in which men commence to teach with no idea of continuing to do so through life, as those in which women do.

Mrs. Walton, of Westfield, said that women are not asked to take the higher positions. They are, by every means, thrust aside, and this is the case with the school committee in Boston, to which now three ladies belong; every attempt is made to thrust them aside. She said if men had to make their own shirts and pants and coats, and on Saturday iron their collars, they would not have much time to devote to studying.

Mr. Hill, of Lynn, thought that not enough time is spent by ladies in disciplining themselves for teaching.

Mr. Jones, of Boston, was opposed to the plan of increasing the number of men and decreasing the number of women teachers. He stated instances where women remain in service as long as men, and are as efficient. The trouble is, that women's salary is not large enough—not as large as men's; but when their salary is as large, they will be encouraged to fit themselves more thoroughly, and be contented to remain in the business of teaching as long as men.

"America" was then sung, and a brief recess taken, after which a lecture was given by John D. Philbrick, LL. D., of Boston, on the subject of "Foreign Education."

In commencing, the speaker was glad to know that nowadays there was more liberality in receiving and adopting the good features of the educational system as found in the despotic governments of Europe. Once, Horace Mann was attacked by teachers for saying that the school system of Prussia was one of merit. Our citizens are too apt to believe that our educational system must be of American growth, of a nature peculiar to itself, and that we may import anything except what pertains to an educational system. They forget that science and the powers of the mind are the same on one side of the water as on the other.

The speaker proposed to compare the educational system of Massachusetts with foreign systems, but declined to make any sweeping criticism of our State system, as there were points in it which she had no superior. The award given to Massachusetts at the Vienna Exposition, for her collection of educational statistics, might have gone to any other State, if such State had taken pains to collect what Massachusetts did. The free school system, not only for elementary, but for middle and higher education, is peculiar to Massachusetts; and she gave to Austria the example which made that country first in Europe to present the free school system. In the amount paid for popular education, Massachusetts stands before all. In this and the sister States of the Union, the revenue which, in foreign countries, sustains standing armies,

is given to the schools. But the money so liberally poured out for education in Massachusetts brings less satisfactory results than in other countries. Elsewhere, they have learned to economize their means, and in foreign countries one dollar goes as far as five in this State. The educational laws of Massachusetts are disjointed, imperfect, and, in many respects, useless. A thorough, radical, and complete revolution in the system of education is needed.

In examining the foreign systems of education, what is particularly remarkable is, that the science of education, or what is called in the German "pedagogy," is carefully studied. It includes a consideration of the whole field of knowledge, with a view to what selections should be made in the limited time allowed for school education. It includes questions in regard to gradation, classification, and management of schools. In short, the consideration and study of every question, high or low, great and small, that regards the education of the human mind in all persons. On this subject, extensive historical works, giving descriptions of experiments tried, have been written, and in Prussia, seventy-four periodicals are published in the interests of "pedagogy." On this study of the science of education rests the secret of Prussia's superiority in education. For years no one has ventured an opinion on educational topics until he has known what is the practice in Prussia. Massachusetts can retain a similarly high rank in education only by studying "pedagogy." In the State we have only one educational publication, which has barely lived for twenty-five years, and now not one teacher in ten reads it.

Massachusetts has splendid teachers and great liberality, but no systematic organization of education; and until in theory and practice she possesses it, we ought not to be content with our system. As Austria received our lesson on the free school system, so we should conquer our prejudices and go to despotic, bigoted Austria for a lesson in organizing our school system. In Prussia the educational ordinances instruct what is to be studied in each grade, as well as define what are the different grades. In Massachusetts, it is not so, and there is no law to tell us what a high school is. There is no way to ascertain whether the schools are conducted as they should be, with the exception that towns are obliged to certify that their schools are kept six months in the year in order to receive their proportion of the State school fund. We don't know whether our teachers are qualified, or whether the studies are taught as they should be. Notwithstanding the liberality of our State, the system of supporting schools is very defective. The towns are taxed and then allowed to carry on the schools as they wish. The subdivisions of the State should contribute in money to the support of State schools, and watch their progress and management. Compulsory education is an established thing, but where are the officers who dare execute the law compelling the attendance at schools? Officials tell us the people would not stand it, which means, in other words, they have not the pluck to execute.

In the education of teachers, Massachusetts is behind. She should adopt some means of preparing teachers; some means of testing their qualification, honesty, and preparation; some means for their proper payment; some means for their proper treatment; and some means for the proper supervision of teachers and scholars. A teacher should have some status in society. Massachusetts in thirty years has added but one to the number of her schools for the preparation of teachers, making the number now four. The schools have, it is true, been enlarged and improved, but now they do not turn out one tenth of the number of teachers needed. Austria boasts 59 normal schools, with 581 teachers and 3,500 pupils; Prussia, 62, with 3,614 pupils; Saxony, 13; Baden, 3; Belgium, 30; Bavaria, 10; Spain, 57; France, 172, not all, however, being in complete operation; and Wurtemberg, not much larger than Massachusetts, 10. In normal schools of Prussia, Austria, and Saxony the teachers are taught what they will teach. They are taught the elementary branches also.

In school-house architecture, we can bear no comparison to many foreign countries. In constructing their school-houses they don't take the opinion of an upstart architect, backed by some building committee who never saw a school-house away from their own town. They have the official architect and engineer, with eminent pedagogists, who determine what is necessary, and then they construct it.

This address closed the morning session.

TUESDAY AFTERNOON.

For the afternoon the Association was divided into three sections. The outline of work in each was as follows : —

PRIMARY SECTION.

In this department, the president, Mr. A. P. Marble, of Worcester, in opening the meeting, spoke as follows : —

Ladies and Gentlemen, — It gives me great pleasure to be called upon to preside over the deliberations of this department of the Association. This is the strategical point of all educational reform and progress. Poor work here cannot be remedied, though of course some of the defects may be partially covered by good teaching farther on. Good work here will do much to put life into poor teaching in the higher grades ; for the awakened intelligence of children will ask and demand from their instructors intelligent teaching. A bright child, accustomed to real knowledge, will not be satisfied with the new form and semblance of knowledge. When the sham is palmed off upon him for the real, he makes his dissatisfaction felt ; and the bright but instructed teacher seeks for him the more substantial food.

The importance of the primary schools is now generally admitted. A person is at once declared to be in the dark about schools who expresses the opinion, once so prevalent, that "any one can teach a primary school." But yet few fully realize the importance of these schools after all. For two reasons they demand a very large share of the attention of educators.

I. Nearly 50 per cent of all the children in our graded schools are in the primary schools. Nearly half our population receive no other instruction than the little they may get in these schools.

II. Those who go on to the higher grades of schools have received, in the primaries, the fundamental ideas — the habits of thought, either the mere respectivity of indolent inaction or the activity of intelligent investigation — which will characterize their future school days.

On the first of these points, Worcester may, perhaps, be taken as a fair representative of the other cities and larger towns of the Commonwealth in which there are graded schools. Of all pupils in our graded schools, last year (1873), 46 per cent are in grades I, II, III, the first three years of school. The average of all these is 7 years and 10 months ; the average of those in the highest of these grades is only 9 years and 4 months. At an average age of 9 years and 4 months, then, nearly half of the children of Worcester leave school.

It is unnecessary to state that what is done in those three years is of vast importance.

On the second of my two points, the necessity of right habits of study, little need be said. Whether a boy gets the idea in his first years of school that he is to play the part of jug, into which some one is to be constantly pouring, or the idea that he is in school for the sake of learning how to use his mind ; which of the two, is enough to determine the whole character of the future man. To recite from memory, table after table, and an almost endless string of facts, and to repeat *memoriter* the primer and the first reader from painfully quiet seats, may do for the pupils of some one who can "keep a school." To develop the minds of children so that every effort will increase the power to make new efforts, this is quite a different thing. It is what we come here to discuss.

To till a field, one must be in the field. To cultivate a mind, you must act upon the mind. Mere bodily presence is not sufficient. How to get the attention and keep it, and how to control the attention unanimously, as by volition only you guide the motions of your body. This is a great art in any school, and especially in a primary school. It is the key-note to all good teaching; it includes the whole question of discipline. If you control the children's minds, the bodies will take care of themselves.

What to study in these schools is an inseparable part of how to study, or how to make pupils attend.

The first question — "Necessity and means of securing attention" — was opened by Mr E. Brookings, of Springfield, who considered attention necessary for the following reasons: Because of the demands made, or which ought to be made, to do a given amount of work; because the time of the teacher should be devoted to one grade or class, or the least possible number of grades; and because a failure to secure attention is demoralizing to the child. An opinion that the capacity of securing attention is a kind of magnetism possessed by but few, is false. Thorough preparation in each lesson, and the presentation of real objects, are among the means of securing attention. Failure is impossible where conscientious preparation is made. Frequent consultation and discussion among teachers as to the manner of presenting topics is at least an indication of success. Oral instruction should be conversation with pupils. Oral instruction will do much to kindle the child's desire for knowledge, and secure his attention. Make the school more attractive, so that the pupil cannot and will not stay away. A heart full of interest for the pupil, a cheerful, sympathizing spirit, in all we say and do for the children, are not to be overlooked in the means of securing attention.

The discussion was continued by several others.

The second question was, "Course of study in primary schools." Opened by Mr. Harrington, of New Bedford, who believed that if a manual of a course of study was used, it should give only the minimum of what was required, and the teacher should have the greatest liberty in selecting and in the manner of instructing. Primary teachers should remember that our character is the greatest educator, and, besides, should give great attention to developing the power of language. Others continued the discussion.

GRAMMAR SCHOOL SECTION.

The topic discussed in this department was, "How can a better knowledge of Arithmetic be gained in less time than is now given to the subject in our public schools?"

The subject was introduced by Mr. G. A. Walton, of Westfield, who said that, as in all study, the object will be most speedily reached by adapting the teaching to the natural development of the mind.

The teaching of arithmetic in primary schools should be limited to the facts of numbers. Numbers should be presented to the pupils by presenting sensible objects. When a new number is presented, its name and the figure representing it should be given, and the pupils should be taught to make the figure upon the board and upon the slate. All the elementary combinations of two numbers each should be taught.

The exercises to be especially emphasized are, counting with the numeral frame and the addition of the single column. Much would be gained by relying upon the eye, instead of depending so exclusively, as is done, upon the ear. It is more important that the pupils see, than that they say. It is a waste of time to read to young people problems, and require them to repeat them and then solve them. Definitions and rules should not be required in primary schools; the terms units, tens, hundreds, etc., may be used.

In the second grade of schools, units and numbers, integral, fractional, and compound, and the fundamental process applied to each class, should be illustrated and defined. The operations for the processes should be analyzed,

and rules stated in accordance with the analysis. Each process should have but one definition and rule. In this department, arithmetic should be limited to United States money and percentage. The exercises must be calculated not to puzzle or overtax the mind.

In the High School, arithmetic should be studied as a science, and a definition of arithmetic given which will present the subject as a whole. Rates and proportion, the roots and progressions, will be treated in connection with algebra, and many of the problems in mensuration in connection with geometry.

With such a distribution of the parts of the subject, the time now given to the study of arithmetic can be much abridged.

D. B. Hagar, of Salem, continued: "We should make use of the objective system in teaching so far as to make the pupil understand why such a combination should bring the required result, and only so far. To save time in the acquisition of arithmetic, mental arithmetic should be laid aside. Colburn's arithmetic has done more harm than good. The nicety and accuracy of definition and reasoning may be done away with. Definitions should be the result of growth. Let the process be understood, and the rule will be learned in half the time, and will be retained forever in their minds. Problems that are not of practical use should be left until a late period of our studies. Circulating decimals, algebra, and many other impracticable processes in arithmetic, should be placed in the appendix rather than in any other part."

The second question, — "How can the power of expression be developed in pupils?" was opened by Mr. J. W. Dickinson, of Westfield.

The act of comparing two objects is, thinking. The mind cannot begin its acts of thinking without having a comparison of objects. Study for clear ideas. We cannot think without language. When the mind thinks so as to make clear distinctions between objects of thoughts, then a person thinks distinctly. Facility of expression also requires a good knowledge of language. Exercises at school should be such as to admit of the pupil's making use of oral expressions. Facility of expression will keep pace with our power of thinking.

Larkin Dunton, of Boston, continued the discussion. Impression should precede expression. The power of expression will be developed in proportion to the power of thinking. The silent moulding influences of reading a good book leaves its mark upon the child's face. If we are to make good thinkers and speakers of our pupils, we must allow them freedom in the expression of their thoughts. The school-room is often made the place of suppression rather than expression. Give your pupils freedom of expression in the earliest stages of their studies, and keep it up to the day of their graduation. Let knowledge be connected directly with expression. This gives the pupil the power of clear description. Too much power is attributed to the influence of grammar in developing in the pupil the ability of unity and speaking correctly. Much power is due the drilling into the mind of the pupil the practice of daily making use of oral expressions in the conveyance of their thoughts. It would be useless to try to make an infant walk by teaching him the principles of physiology. Constant practice in the use of oral expressions, from the earliest to the latest stages of our education, is the foundation of our power of expression.

HIGH SCHOOL SECTION.

The first discussion was introduced by Rev. John Bascom, of Williams College, who read a paper on the subject, "How shall the demand for the higher education of girls be met?" The opening portion of the paper was a logical plea for the necessity of co-education. He then referred to the common objection, that young women require a different course of instruction from young men. This simply means, that women may, with advantage, know less than men. A different education means a poorer one and less suffi-

cient. Nature will settle every point of controversy between man and woman, but she can only settle them as we give to her the opportunity, and let her do what she can do; she will not do more than God has constituted her to do.

The true training of social status between men and women is, equality of opportunities both in getting and using knowledge.

As an objection to co-education, it is often urged that the interest of morality will not allow it. If that were true, it might be a question who should be dismissed, the moral young women or the immoral young men? It is not true, however. The experiment of education is morally safe, as has been repeatedly demonstrated. It is urged, too, that girls are not physically able to bear the training of a college course. Experience does not show this to be the fact. The speaker said, if some girls have, and some have not, physical force enough to bear the fatigue of a college course, there is no reason why a course of such elasticity as to suit itself to variable strength should not be adopted. He advocated reform in relation to the dress of girls, as enough natural force is now expended on dress to meet the strain of a college course.

Professor Thompson, of Worcester, said what is wanted is not to declaim or rant, but to collate the facts upon the subject. President Eliot, he said, has made a careful collation and statement of the facts, which he presented before a meeting of women some time since, and was so treated by them that, in self-respect, he was obliged to withdraw from the meeting. With but one or two exceptions, this collation and statement is all that has been published which throws any light on the subject. The late letter of Colonel Higginson, relative to Vassar College, in the "Independent," did not throw any light other than was before shed on the institution and its results. Not a new fact was given, and this article is a good illustration of how much may be said on the subject which means nothing. The only way is to make examination and research from which to arrive at a conclusion.

Brief remarks were made by others, after which Samuel Eliott, LL. D., of Boston, spoke upon the question, "Should the education of girls in our High schools be identical with that of boys, in subjects, methods, and extent?" He said the high schools for girls labor under the disadvantage that they have not been so long established and have not the same support of tradition as high schools for boys. High schools for boys find it easy to introduce improvements which high schools for girls do not find it easy to introduce. The quality of the education of girls should not be inferior to that of boys. If they have not as wide or as deep intellect (though this may well be questioned), they are all the more entitled to the best quality of training that can be given. The common impediment to a thorough education of girls in the high school is, the impatience of girls to leave school almost before they have begun. The remedy is not to increase studies, but to study in a more thorough manner what studies they undertake.

Miss Johnson, of the Framingham Normal School, said one reason why girls do not pursue a higher course of study is that the money question comes in.

Mrs. Ware, of the Woman's Educational Society of Boston, said she had wondered why girls feel too proud to take advantage of offers of assistance from persons who are willing to aid them through the higher courses; to which question Miss Johnson answered, that often girls are expected to go to work at the conclusion of the usual course, in order to repay expenses already borne by them.

Mrs. Martin, of Boston, thought, in the primary grades, girls should not be kept behind boys of the same age.

Rev. Dr. Mayo, of Springfield, said: "Our reform must begin in this State with the primary schools. Hitherto, our attention has been given to the higher schools. There are elsewhere no such high schools as we have in Massachusetts and other New England States; but the Western States have much better primary schools."

In relation to the statement that there is no career open to girls, he said: "Perhaps there is not a fair chance in the cities of Massachusetts. It is not so out West."

In San Francisco, and even in St. Louis, men cannot be induced to go into schools. In Cleveland, Ohio, there is not one male principal of a grammar school.

In Cincinnati, there is only one man in any of the grammar schools. The salaries of ladies average much higher in the Western States than in New England.

Mr. Groce, of Peabody, expressed regret that Dr. Eliot omitted to say something upon the subjects that should be pursued by boys and girls respectively.

Mrs. Martin, of Boston, would have the teaching for girls quite as accurate as for boys, and would give them an opportunity to pursue the classics of a full preparatory course for college.

Mr. Harrington, of New Bedford, said: "If ladies are to take the places of men in teaching, they must take the same studies. Our great difficulty arises from want of culture in teachers."

Mr. H. R. Greene, of Worcester, said: "The great majority of girls are not being educated for teaching, but for homes. Girls should have more language and less mathematics."

TUESDAY EVENING.

It was expected that this session would be mainly occupied by Joseph White, LL. D., Secretary of the Massachusetts Board of Education, in discussing the half-mill school fund. But at the opening of the meeting, the president announced that a telegram had been received from Dr. White, stating that he was prevented from coming by sickness.

The reports of the committees on Resolutions were then called for, and M. C. Stebbins, of Springfield, presented the following:—

Resolved, That the late Prof. William Russell, of Lancaster, by the rare combination of qualities that pre-eminently characterized him as a Christian gentleman, by his quick and loyal sympathy with all true friends of educational progress, by the generous cordiality with which he always lent a helping hand in every effort to advance the cause of education, by the clearness and correctness of his theories of teaching and his consummate skill in their practical realization, has earned the grateful and lasting remembrance of all earnest educators.

Resolved, That in his death, this Association recognizes the loss of one of its sincerest, most devoted, efficient, and esteemed members; and that we honor his memory, and highly value the worth of his noble example, as an imperishable legacy to the cause in which his life was spent.

In presenting these resolutions, Mr. Stebbins said:—

"It is difficult to express in words my high appreciation of this noble man. It was my great privilege to know him somewhat intimately during the later years of his life, and I can never recall his features without having awakened the deepest love and the profoundest veneration. He was a noble specimen of the noble Scotch race.

"His rare natural endowments were perfected by the most diligent and scholarly culture. He was a true gentleman. To be with him was to live in a genial atmosphere of refinement. His heart was full of kindness and goodwill,—a stranger to jealousy. Every effort to improve methods of teaching, and raise the profession of teaching to a higher level, found in him an earnest helper.

"He was remarkable for his power to kindle the purest aspirations and a lasting enthusiasm in those who came under his teaching. Few educators have ever been so ardently loved by so many of their pupils. This tribute was

richly deserved, for he took great pains to keep up his correspondence with them, and to manifest his constant interest in all their successes.

"As teachers, we cannot place too high an estimate upon the work which was the result of a life loyally devoted to education, and upon his example, which was one of unsurpassed purity and holiness."

Prof. Tweed, of Charlestown, briefly spoke of some distinguishing traits in the character of Prof. Russell. The resolutions were then unanimously adopted.

In the absence of J. D. Philbrick, the resolutions drafted by him relative to the death of Prof. Agassiz, were presented by W. C. Collar, of Boston, but at his request were read by the secretary, Mr. Bunker.

Resolved, That as an association of teachers, we would enter upon our records of the present meeting some expression of our sense of the irreparable loss which the cause of science and education has sustained in the death of that great scientist, teacher, and great and good man, Professor Louis Agassiz.

Resolved, That by his devoted, successful labors in cultivating and diffusing natural science in this community, Professor Agassiz has justly earned a title to our love and adoration.

Resolved, That as a sincere and earnest friend of popular education, as an ardent, sympathetic friend of teachers, and as being himself a great and true teacher during his whole life, Professor Agassiz deserves to be held in honored remembrance by this Association, of which he was a member."

Mr. Collar, of Boston, then spoke upon the resolutions. He said it is hard to realize that within a few days the grave has closed over one of the greatest men and greatest teachers of this century; and while thousands who never saw him are mourning an irreparable loss, it is surely fitting that we should try to give some utterance to a more personal sorrow for a loved and honored associate. In the death of Agassiz, science mourns the loss of a favorite son, the world a friend, and we a brother. Brother, we may call him, for by that name would he, I believe, most love to be remembered and spoken of by us, and such indeed did he recognize himself to be, and make us feel that he was, less from official connection, to which, notwithstanding, we shall always point with pride, than from that active helpfulness and that strong sympathy which he manifested for us as co-workers, however humble, in the same field with himself. No words of mine could worthily commemorate his genius, his great learning, his eloquence, the simplicity of his manners, and the beauty and nobleness of his life. All this the world knows and will not suffer to be forgotten. But perhaps we who have associated with him as a fellow-teacher, have been not less impressed by his love of knowledge, his delight in imparting knowledge, his enthusiasm, and his self-forgetfulness. At least such were the qualities of our great friend, that we should especially cherish and keep green in our memories. Here we must look for the secret of his incomparable power as a teacher. Every time we heard Agassiz, we learned anew that great lesson for teachers, that if we would inspire our pupils with a love of learning, we must love learning ourselves; that for the teacher, above most others, is knowledge power; and that knowledge, kindled by enthusiasm, is irresistible. But greater than his enthusiasm was his self-forgetfulness and utter devotion to science. This was the foundation of his greatness and his success. Alas! alas! that it should also have proved the cause of his untimely death. He had climbed Alpine heights of knowledge, but science still beckoned him on, and, unmindful of weariness and weakness, he would not rest until it was too late.

"Oh what a noble heart was here undone
When science 'self destroyed her favorite son.
Yes, she too much indulged thy fond pursuit;
She sowed the seeds, but death has reaped the fruit.
'T was thine own genius gave the final blow,
And helped to plant the wound that laid thee low."

Mr. Collar was followed by Mr. Harrington, of New Bedford, who spoke of the interest which Prof. Agassiz had always felt in the success of the grammar schools. His remarks will be found in a separate article.

The resolutions were unanimously adopted by a rising vote.

It was then voted to take up for discussion the subject of "Foreign Education," which had been the subject of Mr. Philbrick's address in the forenoon. Mr. Hammond, of Monson, was afraid that our admiration for foreign educational systems would be carried too far. There was much to be deplored in the tendency towards despotic power of the Prussian system. He thought that a handsome architectural effort in school buildings was not so much to be desired as some other things. In our imitation of the foreign system, we need to act upon the eclectic plan.

Mr. Harrington followed in a very similar strain. He thought the building of expensive edifices for school-houses could only be sustained when no poor child was inconvenienced by the difficulty of distance, or when no mechanical aids to teaching were sacrificed. He went on to advocate object-teaching in the strongest terms.

Mr. Collar did not think that Dr. Philbrick, in his address of the forenoon, had advocated an imitation of the Prussian system in regard to the school-houses. But for himself, he placed a very high value upon the use of beauty in school-houses as an element of education. The beautiful was of the utmost importance in moulding the minds of the young.

Mr. Hammond replied, that ours was a new country, and that it was hardly time yet to attend to this matter of architectural beauty, while so many other important things were neglected.

The remainder of the evening was occupied with an address by George T. Angell, president of the Boston Society for the Prevention of Cruelty to Animals. Taking as a basis for his remarks the proven fact, that the presence of diseased meat in our markets was largely due to the cruelty perpetrated upon the defenceless creatures by men, he appealed to the teachers before him to use their mighty influence with their pupils on the side of the humane treatment of the brute creation.

WEDNESDAY MORNING.

This forenoon's session was opened at half-past nine o'clock, with prayer by the Rev. A. H. Coolidge, of Leicester. The report of the Committee on Nominations was then made and accepted, constituting the following Board of Officers of the Massachusetts Teachers' Association for the year ensuing, who were unanimously elected:—

President—Albert G. Boyden, of Bridgewater.

Vice-Presidents—Milan C. Stebbins, of Springfield; Albert P. Marble, of Worcester; Sarah J. Baker, of Boston; Charles Hutchins, of Boston; Charles P. Rugg, of New Bedford; Nathaniel T. Allen, of West Newton; Edward I. Comins, of Worcester; M. Isabella Hanson, of Newton; William C. Collar, of Boston; James S. Barrel, of Lawrence; W. E. Eaton, of Charlestown; A. K. Slade, of Fall River; Alfred B. Miller, of Pittsfield; A. E. Gibbs, of Westfield.

Recording Secretary—Alfred Bunker, of Boston.

Assistant Recording Secretaries—Henry F. Howard, of Newton; Simeon J. Dunbar, of Arlington.

Corresponding Secretary—E. Bently Young, of Boston.

Treasurer—William F. Bradbury, of Cambridge.

Councillors—Charles Hammond, of Monson; Daniel B. Hagar, of Salem; John W. Dickinson, of Westfield; John P. Payson, of Chelsea; A. P. Stone, of Springfield; Rebecca A. Sheldon, of Springfield; Charles Morrill, of Lowell; Frank A. Hill, of Chelsea; E. A. Hubbard, of Fitchburg; Byron

Groce, of Peabody; David Bentley, of Brookline; W. W. Spaulding, of Adams.

The treasurer, William F. Bradbury, of Cambridge, showed the receipts of the past year to be \$1,584.41, and disbursements \$1,543.62, leaving a balance of \$40.82 in the treasury. This latter sum is already augmented by the receipt of fees from nearly one hundred new members who have joined the Association during these sessions. A resolution in tribute to the memory of the late Marshall Conant, second principal of the Bridgewater Normal School, was adopted.

A DISCUSSION

On the subject, "Are the pupils of our public schools overworked?" was then opened by Mr. Littlefield, of Charlestown, who said there seems to be some extra trouble with the health of the rising generation, and it is charged that it is due to the fact that children are overworked; and he said he could not understand why this charge should be made, when the hours of study have been shortened, and more frequent and longer vacations given; when there are better school-houses, better methods, better instruction, ventilation, furniture, supervision, text-books; and when, in short, everything connected with school is better.

Among the causes he enumerated, which tend to debilitate the health of children, are the excitement of city life, the absence of proper dress and stimulating and nourishing food, and the poisonous gases which are breathed by children from various sources. If these causes of ill health can be reformed, there will be a wide margin for keeping good health, which there is not now.

M. C. Stebbins, of Springfield, thought a great part of the alleged overwork was only over-worry. The pupils should work from the right stimulus. He thought there were too many outside demands upon young ladies in the public schools, and their reserve was all that was devoted to school work. Owing to the application of a kind of driving power, in place of the proper and natural stimulus, the incentives to study were not right, and a remedy was necessary here, by allowing the pupil opportunity for a more voluntary action in study, by allowing more time for preparation in studies. More progress could be made with less "overwork" or "worry" in this way.

Major William T. Harlow, of Worcester, thought if the present requirements of time devoted to study, only five hours per day, comprising less than half of the fifty-two full weeks of the year, after deducting the vacations, could not be borne by the scholars of the present day, with all the physiological enlightenment we now possess in regard to the laws of health and mental and physical action, these pupils, male or female, had better be sent to the hospital for sanitary treatment.

Other speakers made brief remarks relative to the subject, and after a recess of five minutes, a discussion was introduced by Prof. C. O. Thompson, of Worcester: "How far should natural history and the physical sciences be studied in our Grammar Schools?"

He spoke at first upon technical schools, which he said would not, as he thought, ever be founded for the co-education of the sexes. The persons who have studied this subject attentively and thoroughly, and who have weighed all the arguments on both sides with reference to making the best disposition of their money, have decided that the separate woman's college is the best for the highest education of women. The process now going on is isolation of the sexes in education. The grammar school is the school where five sixths of the boys and two thirds of the girls finish their education.

All agree that it is desirable that all scholars should be kept in school beyond the period when they will get through the grammar school. The ex-

perience of those men and women who have examined boys and girls for admission to the higher institutions is, that the preparation of these young persons in the grammar school is lamentably inefficient, and has for the past five years been growing worse rather than better. To teach the physical sciences the teacher should be well qualified to teach them, and this qualification but few possess. Without two conditions, physical sciences should be ruled out of the grammar school. The conditions are, that the studies should not be taken up unless there be enough apparatus to afford a convenient and effective illustration of the subject, and unless there is intelligence enough on the part of the pupils to understand the processes by which these laws are established. The boys and girls in our grammar schools are not sufficiently mature, and have not sufficient intelligence and discipline of mind to comprehend the processes by which physical sciences are established, and the apparatus is too expensive also. Natural history sciences, however, should be taught in the grammar schools, as these sciences can be taught and acquired by means of the study of natural objects, which can readily be procured. It is a lesson of facts, and not a close study of processes.

Mr. H. F. Harrington, of New Bedford, said that in these days, when newspapers contain the reflection of the very best minds in the world, enough applied science should be taught in schools to give the pupils at least an inkling or an idea of what the pages of the newspapers contain, so they will know what the subjects so often mentioned mean. He said he considered the experiment on the platform just as much a visible fact as the stone in the hand is a visible fact. The discussion was closed after brief remarks by others.

CLOSING BUSINESS.

The Committee on Resolutions presented a list of resolutions congratulating the officers upon the favorable circumstances under which the Association has met, and the success of the gathering, and expressing the hearty thanks of the Association to the Mayor of Worcester for his generous welcome; to the School Committee of the city, for opening the doors of the High School building; to the Superintendent of the Schools, for his unwearied exertions in preparing the way for the coming of the Association, and rendering the stay of the members so agreeable; to the editors of one hundred and four Massachusetts papers, who have freely called the attention of the teachers of the Commonwealth to the meetings of the Association; to the railroads, which have uniformly sanctioned the issue of free return tickets to members of the Association; to the hotels of Worcester for the reduction of their rates, and to the ladies and gentlemen who have promoted the interests of the Association. This closed the annual meeting, which, after the members had sung "America," adjourned.

"A GRAND EDUCATIONAL PARADOX."

A WRITER in the last number of the "Teacher," who discusses some of the educational problems of the present, and in the course of his essay does me the honor to quote a passage from a recently published address of mine,* though unable to determine very definitely what it means, is disposed, on the whole, to find in it nothing but a "grand educational paradox," and a doctrine quite at war with the latest and best results of German and other educational experience. The doctrine which so puzzles and confounds him was briefly this: that in planning a liberal education, whatever enters into our conception of its higher stage, should have its seed planted in our elementary schools. My critic is disturbed at the logical result of this doctrine.

* The Liberal Education of the Nineteenth Century. New York: D. Appleton & Co.

"Would not the drift of the quoted paragraph," he asks, "warrant the inference that every school, from the primary upward, should be a university; 'childish,' it may be, but still a university?" And he is alarmed at the prospect of work which such a plan is likely to impose on teacher and pupil, and seriously afraid that the idea smacks too much of the golden age and the millennium.

Nevertheless, I answer his question very composedly in the affirmative. The primary school *should* be the child's university; the grammar school should be the university of that great mass of boys and girls whose education will never be carried further. In like manner the high school should be a university, but *not* in the sense of being a place where young men and young women acquire such a wonderful grasp of superficial misinformation on such a wonderful variety of subjects as I fear they sometimes do now. The question whether my doctrine is a mischievous paradox, that will aggravate, if it have any influence, the tendency already strong enough towards making our schools instruments for the spread of superficial sciolism and a half-understood smattering of learning, destructive alike to intellectual and physical health, or whether it tends in the direction of making instruction sounder, and school discipline more wholesome, depends altogether upon the meaning we give to the words "a child's university."

Now the mistake my critic makes in respect to my meaning is just the error which vitiates, to a greater or less degree, a great deal of our elementary teaching. It is the error of supposing that the processes of elementary instruction are the same in little which the processes of higher instruction are on a large scale,—the error of supposing that a child's school-book is an adult's school-book cut down; that the child's proper dress is grandfather's coat made smaller. My critic, therefore, conjures up before his mind's eye all the paraphernalia of a college, and tries to reduce it to the dimensions of a primary school; "teachers," for instance, "severally devoted to a specialty, and who can bring to their teaching the culture harvested from many years of concentrated and laborious research." Certainly we shall have to wait for the millennium before we find such teachers in our primary schools; but is not this bringing rather heavy guns to bear upon a position which, perhaps, can be taken more easily? I will try to give my conception of a "child's university," and I think it will be found to be not such a very formidable affair after all. And to do so I will draw upon some of the recollections of my past experience as member of school committees.

I was once in charge of a large primary school of Irish children, which had been the opprobrium of the town, until a woman of superior intellect and ability entered it. I found her teaching the three Rs very successfully,—so successfully, in fact, that the school, which had been the worst in this respect, had grown to be the best in the town; but I found her by no means confining herself to the inculcation of the three Rs. In the first place, she had taken the children and *cleaned* them; and then, with an occasional vigorous application of the rod,—for, though exceedingly disliking corporal punishment, she by no means belonged, or indeed, in her position, could well belong, to the teetotal anti-corporal-punishment party,—she brought the school into a thoroughly good state of order and discipline. She would by no means allow dirty hands and faces, or torn clothes, or filthy ways, or rude behavior. In other words, she had vigorously undertaken the practical teaching of morals, manners, and government, the germs and rudiments of ethical and political science, though I did not see any treatises on that subject lying about. She had gone so far in the direction of ethical teaching, that, though a Protestant of the most liberal sect, she had established such a character among the Catholic parents of her charge that they earnestly co-operated with her, implicitly obeyed her directions, and themselves brought their children back to school when they played truant. I never undertook to examine these children on Mill's Utilitarianism or Wayland's Moral Science "abridged," and am sure I could not have produced any results that way; but I am none the

less sure that the rudiments of ethical science were taught very efficiently in that school.

But she went much further. I noticed that the windows were full of flowers, and I once happened in upon a lesson of flowers. It was not given out of Dr. Gray's larger Botany, and by no means resembled the learned professor's prelections at Harvard College. If it had it would have been as bad of its kind as his are admirable, because it would have been wholly out of place. There is a wheel to a watch and a wheel to a mill, but you can't just use one for the other; neither is one the other "cut down." My friend's lessons were perhaps not on "botany" at all; I rather think they were on trees and flowers, matters with which botany, as sometimes taught in school, has very little to do, it being mainly concerned with sundry uncouth Greek and Latin words. But I go so far as to say that the seeds of what might afterwards grow into a taste for and knowledge of one branch of natural science were being planted there more successfully than if the children had been ever so much drilled on "monandria," "dioecious," "exogenous," and all the rest of it. In fact, they were beginning where Linnæus and Dr. Gray had to begin. Now, inasmuch as it was teaching both ethical and natural science, I maintain that so far that Irish primary school was a child's university.

I think it quite possible that they were learning physical science — had been shown, for instance, what made the water come in the pump, and for aught I know there was some young Watt or Newton in that school, who would presently begin to ponder upon falling apples and tea-kettle spouts. At any rate, if there was one, I am sure it was the way to make him ponder; and cramming him prematurely with "treatises" was not the way.

Again, the children were learning poetry by heart. Observe I say "learning by heart," not "committing to memory," which is a different process. I do not think it was *Paradise Lost*; and, whatever it was, I am very sure they were not *parsing* it, but learning it. Very likely it was one of Mary Howitt's little poems about birds and flowers, or possibly an Irish national song or an Irish ballad. At any rate, it was something they *could* "learn by heart." Furthermore she read stories to them — very simple matters, say *Robinson Crusoe* or *Pilgrim's Progress*. At any rate, it was literature, and so I call the school a literary institution, and fancy that some of the children might not only have been taught how to read, but what is less thought of — taught how to use that art for good and not bad purposes. "Do not," said a lady once to me when I was criticising a certain teacher, "do not laugh at his peculiarities. He taught me to love and appreciate English poetry, and it has been a treasure and delight to me all my life." Was not that being, as teachers go, rather a successful teacher? Is it the outcome of *all* school teaching of "compendiums" of literature now?

I asked her how she found time to do anything more than get up the children for examination in the spelling-book, arithmetic, Roman numerals, etc. She said the spelling-book and Roman numerals did not much embarrass her, provided she could inspire the children with *interest*. And, perhaps, that is an answer to my critic's difficulty about overcoming the "friction and inertia developed in dealing with average boys and girls." That there is a great deal of friction and inertia to be overcome, I would be the last to deny. I would go much further and say that many teachers have a wonderful faculty for developing both, so that schools may sometimes be seen whose whole force is expended in just overcoming them, — tread-mill schools, where it is "all action and no go." But those do not seem to me to be the ideally perfect schools. Neither schools nor other machinery are set up *for the purpose* of overcoming friction, any more than the final end of government is full state-prisons and plenty of work for the constabulary. That is the best government which is most willingly obeyed, and that is the best machine which works with least friction; and in school might not exciting interest be a good way of overcoming inertia? At least I wish it were tried oftener.

I think that if there is friction in the school — of the birch or otherwise —

it is quite as a-t to be the teacher's as the pupil's fault. I was walking in a suburban town the other day just as the little urchins were let out of a primary school. "Pat," sung out one to another, who had apparently been playing truant, — small blame to him, — "your sister was licked to-day." I listened to a group as I walked along, "Yes, by —," said one about as high as my knee, "she set us some words to write, and then she did nothing but lick us all the morning," and they proceeded to discuss sundry methods of retaliation. "*Emollit mores nec sinit esse feros*," I repeated to myself, and reflected on the perfection of our unsurpassable system of public education. I said it was perhaps the teacher's fault; call it rather the fault of the system; for I recalled to recollection the weary, jaded young women I had so often seen in stifling, unventilated rooms, trying to reduce order out of the chaos of a mob of fifty or sixty equally weary children, through the sole medium of the spelling-book and Roman numerals. I don't think it *can* be done, without a great deal of friction.

But it can be done; and I recall to mind an earlier experience where it was done quite successfully. Many years ago I was a visitor of a school where the teacher was a cast-iron school-ma'am of the old regime. She has been long gathered to her fathers; but for thirty years that grim woman wielded the ferule, and taught the spelling-book and the Roman numerals on the same spot. I believe she was an excellent woman — as faithful and conscientious in her rigid, narrow way as my other friend in her better one. She was set there to teach the three Rs, and she did it; and woe to the child who missed his Roman numerals, or whose "evil communications corrupt good manners" did not appear straight and clean on the copy-book. I do not think the children were unhappy, for she was a just woman, though she had a strong right arm; but her school was *not* a university. I think no inspiration went out of her. She taught the children faithfully how to use the tools of learning, but learning itself she did not and could not teach.

Now my paradox amounts to no more than this: the belief which I should be sorry to have to give up, that *very* slowly the type of teachers represented by my second example is being superseded by my first, in primary, grammar, and high schools. It is not so much the amount of knowledge our children are made to acquire that hurts them; for of sound, clear, wholesome knowledge, taken into and made a part of their very being, they acquire very little. It is bad *methods* of learning and teaching that do the mischief. If you set children down to studying, through the medium of dead types, a whole row of "treatises" on sciences and literatures, though they may be ever so much "abridged," you will kill them in the process of learning what wise teaching by better methods might teach them without their knowing that they were studying sciences, literatures, and ologies at all; and that, in my judgment, is the true method of *elementary* teaching. I want to see *work* in school, and that work punctually, faithfully, and most exactly performed; but I think we as greatly overrate in our school-teaching the power of the immature mind to perform work, as we underrate its power of imbibing knowledge by methods distinctly pleasurable. It is a relic of the grim traditions of Puritan days, — this banishing all pleasurable ideas from the school-room, this habit of dissociating ideas of study and of happiness, from one another. I admit that it is discouraging, uphill work, this of trying to awaken taste and love for intellectual exertion in masses of often very dull and unintellectual beings. I by no means suppose it will lighten the teacher's labors; but it will be labor worth doing, for it will call out her own highest faculties, and make teaching, what is now to many a conscientious and thoughtful teacher, a constant exercise in self-discipline and self-education; and it is in this sense that I shall continue to adhere to my paradox, that the very primary school should be the child's university, where the wise and thoughtful teacher will always deal with the little being under her charge as the "germ and embryo of all he is destined afterwards to become."

W. P. A.

Books.

ADDRESSES AND JOURNAL OF PROCEEDINGS OF THE NATIONAL EDUCATIONAL ASSOCIATION, SESSION OF THE YEAR 1873, at Elmira, New York. Published by the Association.

This volume contains two hundred and seventy-two pages of medium octavo size, bound in the same style as the previous volumes. It is to be hoped that it will have such a circulation among teachers as to render the association truly national in its influence. Of course, but a very small part of the teachers of the United States can attend its annual sessions; but for the small sum of \$1.50 every teacher may avail himself of the best thoughts of the most distinguished educators of the country upon almost every question of educational interest, from the university to the primary school and kindergarten.

The papers of Dr. McCosh, President Eliot, etc., with the full reports of the discussions which followed their reading, will be found of especial value to all interested in the higher departments of education. It can be obtained by sending an order with money accompanying to S. H. White, chairman of the Publishing Committee, Peoria, Ill.

HOW TO TEACH. A Manual of Methods for a Graded Course of Instruction: Embracing the Subjects usually pursued in Primary, Intermediate, Grammar, and High Schools; also, Suggestions relative to Discipline and School Management. For the use of Teachers. By Henry Kiddle, Supt. of Public Instruction in New York; Thomas F. Harrison, Supt. of Grammar Schools, and N. A. Calkins, Supt. of Primary Schools. Published by J. W. Schermerhorn & Co.

This book ought to be in the hands of every primary and grammar school teacher. The authors have brought together the result of a long and successful experience, and made practical suggestions on methods of teaching all the ordinary branches of our common schools, that will be of incalculable value to any young teacher who is seeking for the best methods.

LIPPINCOTT'S MAGAZINE, for February, with its beautiful illustrations and its rich table of contents, is before us. "Josephine and Malmaison," by Marie Howland, and the first chapters of McDonald's "Malcolm," are among the most interesting, where all is good.

OLD AND NEW, for February, is a good number, containing several chapters from Trollope's "The Way We Live Now," chapters third and fourth from "Tom Haliburton's Quandary," an article on "Exercise," by the editor, and other excellent articles.

THE ELOCUTIONIST'S MANUAL, No. 2, comprising new and popular Readings, Recitations, Declamations, Dialogues, etc. Edited by J. W. Shoemaker. Published by J. W. Daughaday & Co., Philadelphia.

This little volume, of about two hundred pages, contains an interesting variety of selections suitable for social readings and for school exhibitions. It is the cheapest way of getting something fresh for such occasions, — the price of the book being but thirty-five cents.

OLIVER OPTIC'S MAGAZINE for February contains two chapters from "The Coming Wave," by Oliver Optic; two from Prof. James De Mille's new story, "The Lily and the Cross," and two from "The Story of a Tomboy," by George M. Baker. Then there are shorter articles, original dialogues, and other matters that will be puzzled over by young heads. Published by Lee & Shepard.

THE ATLANTIC MONTHLY for February is received, and is not only good, but especially so. To justify this statement, it is only necessary to say that it contains, among many other good things, "A Chapter of Autobiography," by Robert Dale Owen, an account of the "Anti-slavery Convention of 1833," by John G. Whittier, all of which he saw, and a part of which he was, — "A Ballad of the Boston Tea-Party," by Oliver Wendell Holmes, and "Recollections of Agassiz," by Theodore Lyman.

BOOKS RECEIVED.

THE ŒDIPUS TYRANNUS OF SOPHOCLES. Published by Ginn Brothers.

THE ANCIENT CITY: A study on the Religion, Laws, and Institutions of Greece and Rome, By Fustel De Coulanges. Translated by Willard Small. Published by Lee, Shepard & Co.

We had intended to notice this book in the present number; but have become so much interested in reading it, that we have not found time. We shall have more to say of it hereafter.

THE MASSACHUSETTS TEACHER.

[B. F. TWEED, Editor for March.]

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MARCH, 1874.

No. 3.

✓ AGASSIZ.

AGASSIZ is gone. These pages will no longer be enriched by his pen. Educators in their discussions will never again hear his eloquent voice. His warm hand and genial countenance will no longer cheer earnest teachers at their social gatherings. His work is finished, — finished as far as it is permitted any one to finish a grand and noble work that can have no end. Rather say, our work is begun.

It is fitting that we should pause a while to consider what he has been to us, and what is the significance of his work.

Whatever he may have been to the world at large, to the world of science, to his more immediate acquaintances and friends, to us he was an elder brother, loved and loving. Crowned heads may have vied with each other in decorating him with honors; learned societies all over the earth may, in view of his great contributions to science, claim him for their own; orators and poets everywhere may celebrate his greatness; but we who are teachers cannot forget the great soul who in his last will and testament laid aside all his innumerable titles and distinctions, which men so greatly prize, and wrote simply Louis Agassiz — teacher. What nobility his noble self-forgetting, truth-searching, and truth-dispensing life gives to our humble calling!

Louis John Rudolph Agassiz was born at Motiers, near Lake Neufchâtel, Switzerland, May 28, 1807, and died at his home in Cambridge, Dec. 14, 1873. Cradled by an intelligent mother, the

daughter of a physician, tutored by a father himself a Protestant clergyman, who traced his line back through six generations of exiled French Huguenot clergymen, he, though intended for the medical profession, came with more learning than most men gain, to claim a place in the ranks of that calling that is not as yet granted to be a learned profession. A student at Lausanne, Zurich, Heidelberg, Munich, Paris, he came to be the friend and pupil of Cuvier and Humboldt. He read Plato and Aristotle in the original, wrote many of his works in elegant Latin, had French and German for his vernacular tongues, yet was able to charm English ears with the easy flow of a tongue not barren of orators and poets.

And it is certain, too, that, pressed at one time by priestly prejudice in the enunciation of geological facts, he was led to master the Hebrew language, which he once playfully remarked he could understand as well as many of them. Well versed in six languages, his course furnishes no argument against linguistic studies. But chiefly imbued with the spirit of his great masters, Cuvier and Humboldt, whose work he took up and carried on to the advancement of science, he has been known chiefly as a naturalist. His greatest works are perhaps his "Fossil Fishes" (*Poissons Fossiles*) and his "Studies of the Glaciers" (*Etudes sur les Glaciers*), followed by his "Système Glaciaire," and his contributions to the Natural History of the United States, of which four volumes quarto, abundantly illustrated in the most artistic manner, have already been published.*

We are not unaware of the fact that detraction, especially in England, has robbed him of a chance to be heard for a while; but one who will look over the immense work he has accomplished, and especially if he will compare faithfully, with the aid of the scalpel and microscope, any part of it with nature herself, will be amazed at the extent, the variety, the minuteness, the accuracy, the delicacy, and yet the comprehensiveness of his observations. And although he published so much, he had vastly more material for publication.

* For a statement of Prof. Agassiz's contributions to science, see an article which comes as this goes through the press, in the March number of "The Popular Science Monthly," by Richard Bliss, Jr., a student and assistant of the Agassiz Museum.

But it is chiefly Agassiz the teacher that we would consider here. Other pens will review his scientific contributions and unfold his devotion to truth and the cause of humanity. Coming to this country in 1846, his first course of lectures was delivered at the Lowell Institute the year before the "Massachusetts Teacher" was started. But of the second course, the third number of the first volume of this journal says: "The large portion of the Massachusetts public which enjoys the advantage of attending the Lowell Institute lectures, have again * the privilege of hearing this distinguished foreigner." Foreigner then, but American he has long since proved in spirit and work. "His subject is Ichthyology, one which might be expected to be among the least interesting to a popular assembly. But where McGregor sits, there is the head of the table; and the commanding talents, the earnest enthusiasm, and the incomparable attainments of the professor give a charm to a subject that yesterday was not thought of, which to most persons is irresistible. Let any person, even of common endowments, give many days' serious attention to one of the Creator's great works, so as to get some faint insight into the law and design on which it is wrought, and what he says will be worth listening to. But when a man of genius devotes the best part of life to a kingdom of nature, and discovers relations and laws which had never before been detected, and when he comes forward to say simply, earnestly, and like a man, what he has learned, nothing but a reverence for God's workmanship, and intelligence sufficient to comprehend it, are wanting to make delighted listeners of any audience." And after speaking of the wonderful facility with which he illustrated on the blackboard the meaning of what he said, the writer continues: "Mr. Agassiz has a higher object in view than merely to teach the structure and classification of fishes; though, if that were all, he might well say that what God has seen fit to make, man may deem worthy of study. But, in addition to these, he is showing us that a higher agency is at work than the circumstances of temperature, light, food, electricity, or whatever else material can act upon creatures; that a personal, spiritual, ever-

* Agassiz gave his first course of lectures in this country before the Lowell Institute in 1846.

living Creator, has made all and controls all." Thus thought the "Massachusetts Teacher" in February, 1848.

Not to trace more minutely the relation which thus began between the great naturalist and this journal, we cannot refrain from speaking of the January number for 1850, which he edited. To this he contributed an article of nineteen pages on the "Importance of the Study of Natural History as a Branch of Elementary Education," besides a shorter article, entitled, "Some Hints on making Collections for the use of Schools." The number contained also, besides an account of the Norfolk County Teachers' Association, an article on "Good Manners," and a fine tribute to Agassiz's early friend and fellow-laborer, Prof. Arnold Guyot, in an article entitled "Geography." But what makes this number of particular value is the strong plea of Agassiz, in the leading article, for the study of Natural History in our common schools. To those teachers who united in doing honor at the last meeting of the Massachusetts Teachers' Association, at Worcester, to the memory of Prof. William Russell, of Lancaster, and of Prof. Agassiz, or at least to those best acquainted with the history of this journal, must have come the memory of the number for October, 1859, edited by Prof. Russell, who thought that nothing could be offered to the readers of the "Teacher" better adapted to promote their professional usefulness or their personal enjoyment, than a reprint of the above-mentioned article from the January number of 1850. As it is next to impossible for younger teachers to obtain these early numbers, would it not be well to again reproduce in these pages this article? For after twenty-four years of gradual progress, we may be better able to profit by its wise suggestions. Prof. R. says, "An important object in view, in introducing the article a second time into our pages, is to remind our fellow-teachers how they may, personally and individually, acknowledge the liberality of Prof. Agassiz by entering zealously and efficiently into his suggestion regarding local collections and school cabinets." Devoted student and teacher of the English language in its great richness of expression, especially as addressed to the ear, as was our venerable Professor, he knew the value to the cause of education of the studies which Agassiz so incessantly urged upon the attention of

teachers and the public. And, as the writer of this article knows, the "suggestion regarding local collections and school cabinets," which has produced perhaps little visible fruit, was the subject of very earnest remarks by Agassiz to his assistants the very last time they were assembled to hear his words. His explicit directions to all were to lay aside everything that was not needed in the museum, or to make exchanges with those who could contribute something new to the museum, for those schools that showed a desire for them. And in a museum like that in Cambridge, there is a great accumulation of material, duplicated by constant arrivals from all quarters of the globe, of what any school would be most fortunate in securing. Who would believe that any school committee, or any people, who willingly invest tens of thousands, or even hundreds of thousands of dollars in buildings for their children, will grudgingly dole out any mere pittance for cases, jars, or alcohol, properly to preserve, protect, and exhibit some of the results of the searching of so untiring, so unselfish, and so discriminating a collector as this great teacher, who thought that the *works of the Creator* were of more use in teaching the young than man's poor words about the words of other men.

But we must not linger. Our space is limited, your time is short. The press teems with sketches of his life, his labors; and one would think, from the generous praise now poured out upon his grave, that either men had forgotten their petty feelings of envy or personal dread of being overshadowed, or whatever other spirit of selfishness that threw clogs in the way of Agassiz's grand plans, and that they had suddenly awakened to find that all they can now say in his praise is an investment in an estate of which they are now heirs. And we are all heirs to the grand estate which he has left. No boy so poor as not to be able to enter at once into the enjoyment and use of the grand museum and library of science which he has collected from every quarter of the globe. And not blindly need he enter to waste his portion of the vast possessions. During the last week we have looked through some of the public libraries in this neighborhood, to be amazed at the bulk, the *mere amount*, of printed matter there accumulated, of which he was the author. And much of it, many ponderous volumes, splendidly illustrated with exquisite

engravings, were published at his own expense. We have before us a list of over fifty separate works, single volumes of which would have established any man's reputation. But a writer in the October number of "The Popular Science Monthly," who attempts to fix Agassiz's position among naturalists,—a writer with a wonderful memory and a trenchant pen, but who, being no student of nature, should not be encouraged in an arrogance as conspicuous as was the humility of the one he would disparage with ridicule and contempt,—a writer who says, "Thirteen years ago, was my mind so thoroughly made up"—he was then a sophomore in college—"that the discussion of it,"—the Darwinian theory,— "as ordinarily conducted, has long since ceased to have any interest for me,"—says that "Prof. Agassiz's explanation of the development of eggs is rather tedious and dry, and by no means richly fraught with novel suggestions. The exposition is a commonplace one." So we should think this crystallized sophomore would find it. Says Beecher, "It was Agassiz who made straight the path of Tyndall last winter, created the demand for Huxley's lectures, and made the 'Popular Science Monthly' as much a necessity as 'Harpers' or the 'Atlantic.' It was Agassiz whose large intent laid the corner-stone of our Institutes of Technology, and Scientific Schools in colleges." This the editor of the above Monthly has the justice and grace to quote in his last number.

Evolution may be true or may not be true. The facts of nature alone can tell. The fields of mythology and science are not the same; they are tilled by different instruments, require different culture.

And this brings us to the closing, the crowning work of Agassiz's life. The building up of a great museum in America, like that at Cambridge, was to be his great gift to the world; but in connection with it an institution for the special instruction of teachers, like that at Penikese, was perhaps nearest his heart. The former was as well advanced as he could ever have hoped to see it in his life-time,—its success, its final completion, only the work of time; but the special school for teachers at Penikese merits more than a brief mention. When reminded that the preparations could not be completed in time for the school this last year,

and when, in view of the labor that would come upon him, he was advised to put it off for another year, he replied, "I cannot afford to wait a year. I must see it started." He felt, as he himself says in a letter to a friend in England, "The Anderson school cannot fail henceforth to have a powerful influence upon the progress of science in the United States." And it was in no boastful or complaining spirit that he writes what all of his pupils felt was the greatest boon to them: "I have given myself up to the task with all the energy of which I am capable."

It would take a volume to record all he said and did in the short two months' session of that lone island school. With buildings and appliances half finished even at the close of the term, we yet had Agassiz. He was present at the head of the table at every meal, he was present at every lecture or exercise, at every meeting of the students' "Club"; and when not lecturing was intently following and ready to supplement any lack of information in any discussion by professors or students. He gave himself up wholly to advance the progress of the students, even sitting at the laboratory tables and working on new problems, or with the scalpel taking out the brain of a huge ray, or some other strange fish, or dissecting tiny shells or minute radiates with a delicacy and precision of movement that taught, better than any words could have done, the difference between neat, skilful work and what must have pained him as he looked over the shoulders of some whose only teaching had been from books.

It would be interesting as a lesson to the teacher to be able to follow him day by day to hear what he said and to see what he did. The history of this summer's work may sometime be written. It will serve our present purpose to give a few particulars.

His constant direction was, "Study nature, not books." Yet he did not undervalue books. The time could hardly have been spent more profitably by the student who wished to know who had written on the different departments of Natural History, or how well, than by listening to his words. He had not published his "*Bibliographia Zoologiæ et Geologiæ*," filling four octavo volumes, to be ignorant of *who* had written or *what* had been written. He meant that the student should learn *first* to see for himself, and this was of more worth than to know what some one

else had seen. By having his pupil teachers take up problems of structure, or form, or relationship in the specimens before them, he was showing just how they could have their pupils, in turn, best approach the subject. The course of instruction was made up sufficiently of lectures, two or three a day, but mainly of work at the tables or of expeditions in search of living specimens. He said, to begin with, that he should be more than satisfied if each student could learn before the close of the term how to work, how to go home and examine the lakes, rivers, forests, and fields of his own neighborhood with profit. His help was greatest to those that showed themselves most ready to receive aid in the study of objects. No room for sham work; no room for book knowledge, except so far as it assisted the eye to observe and the hand to trace the delicate organs which he constantly tried to show were more wonderful than anything man could say of them.

He continually and wisely noted what each was doing. And when one day, he, in the most impressive manner, remarked upon the waste of life, the destruction of specimens, the careless manner of handling works which showed such exquisite skill in their structure, and reverently and kindly reminded us that we were studying the works, the thoughts, of One who had created all this beautiful cosmos, this laboratory, expanded into a vast and magnificent cathedral, if you please to thus consider it, devoted to the worship of the Most High, and there was a hush and an awe thrown over us as if some high-priest were leading us into the presence of the Almighty, and everything around us was sacred, consecrated as no brush or chisel or tongue of man could consecrate them, — with the very presence of the Great Spirit, the Creator of the universe. It was something akin to this that gave character to his studies, that excited an interest always in every audience. It was not the mere study of the creatures of chance, the comparison of forms which were the result of accidental circumstances, that could hold the attention of the indifferent; nor was it the skill of the experimenter, nor the wonderful eloquence of the speaker. He always sank himself in his subject. A child wandering in an ever new world of delight he seemed to himself, — and to be only getting glimpses of the beautiful works of the Great Creator; though

who shall talk so lovingly or see so fully the meaning of this unknown world about us ?

That tribute of Longfellow's, written on the occasion of his fiftieth birthday, beautifully expresses this feeling.

But we must not forget that his life was a battle for what he thought the truth ; and science and religion were in his mind one, though what chiefly passes for such was in his estimation neither. And in our future studies and discussions we may well bear in mind these, among his last words : —

" It cannot be too soon understood that science is one, and that whether we investigate philosophy, theology, history, or physics, we are dealing with the same problem, culminating in the knowledge of ourselves. Speech is known only in connection with the organs of man, thought in connection with his brain, religion as the expression of his aspirations, history as the record of his deeds, and physical sciences as the laws under which he lives. Philosophers and theologians have yet to learn that a physical fact is as sacred as a moral principle. Our own nature demands from us this double allegiance."

SOLON F. WHITNEY.

HINTS ON TEACHING ENGLISH LITERATURE.

It has been our lot to teach English Literature in a country high school during the last three years. During this time, necessity has forced us to make use of various helps for the profitable prosecution of this study. The thought that these hints might be useful to others who are teaching in our smaller high schools has induced us to write the following article. It is a well-known fact that high schools, aside from the cities, are sadly in need of miscellaneous books, and even books of reference. Accordingly, most teachers are obliged to devise plans to assist their scholars to obtain the needed books, especially in literature, history, and rhetoric. To study English Literature as it should be studied, the pupil should be taught not only to read about the author, but also to make a study of his best writings. For instance, it is well enough to read about Gray and Bryant, but the

real value and discipline come from an earnest study of the *Elegy* and *Thanatopsis*. We know of no single text-book which is adapted to an advanced class in literature. Many and excellent books tell us all about authors, without any selections from the authors themselves ; others give admirable selections with scanty notices of the writers. We have used and prefer Underwood's Hand-book of Literature, as best suited to high-school instruction. Suppose we have a class of ten or more beginning a course in English Literature. We have tried the following plan with three senior classes, and found it well adapted to maintain interest and get good results from class work. Let each pupil be prepared with Underwood's Hand-book, a blank book of 100 pages, and a note-book made of brown wrapping-paper to take notes in the rough. The teacher should then give ten or more introductory oral lessons on the English Language, which the class will take down and copy in their note-books, subject to the usual questions and criticisms from the teacher. Materials for these lessons can be obtained from text-books on rhetoric, the works of Trench, Marsh, De Vere, Swinton, and Clarke's Elements. Many curious derivations, gossip incidents, and much useful information can be easily culled from these books and arranged to accompany the Historical Introduction in the text-book. That my classes might gain more information of the authors than our text-book afforded, I loaned to each member of the class from my private library a text-book on the subject. The more common books are the works of Taine, Collier, Hart, Craik, Shaw, Yonge, Gilman, Chambers, Cleveland, Arnold, and Spalding. Prof. Shairp's Essays on Poetry, Prof. Reed's Works, De Quincey's Essays, odd numbers of the Atlantic, Eclectic, Harper's, and Living Age, were used as parallel reading. "In studying the lives and times of each author," says Prof. March, "the student should look up information everywhere ; scraps from novels like Scott's, from reviews, and magazines are not to be despised."

If, however, books are not to be had, the teacher should give the needed facts and thoughts in familiar lectures, and the students should take notes and re-write. Suppose the class begins with Goldsmith. Each should prepare from his books a condensed biography, or rather sketch ; write it out in his note-book ; come into the class next day and read, or recite orally.

Each abstract would have something new, and, with numerous questions from the teacher, interspersed with anecdotes, stories, incidents, etc., would prepare the class to begin the next day to read and study the author. If there is time, let two or more pupils, having selected interesting passages, read from Irving's *Life of Goldsmith*, and Miss Sanborn's *Home Pictures*. Of course, no teacher should begin with Chaucer or Spenser, but with some of the later writers, and should adapt his particular course of study to the class, and not the class to the course. We prefer to begin with Gray's *Elegy* and Goldsmith's *Deserted Village*; then take up selections from Addison, Bryant, Lamb, Byron, Cowper, etc. Reserve the earlier authors, as Chaucer, Hooker, and Shakespeare, till a later period in the course. Valuable suggestions on teaching English can be found in Hale's *Longer English Poems*, and in the educational books published by the Clarendon Press, and Macmillan & Co.

To stimulate young people to read substantial books at home, and thus gradually acquire a taste for good reading, is a difficult task. To teach pupils to throw aside sensational papers and novels for something better, and to substitute, in place of this morbid desire for the marvellous, a love for the writings of standard authors, is the duty of every teacher. To begin such a work, we have used the following plan for some time, which perhaps would not be necessary where the town or school was provided with a public library. We purchased in Boston, English editions of the best authors, published by Routledge, Nimmo, and Warne & Co., which cost about twenty-five cents each. These editions are well printed, correct, and well suited to the purpose, and include Goldsmith, Bunyan, De Foe, Scott, Byron, Lamb, with many others. The books are numbered, and on Monday mornings are distributed and charged to the pupils, who are required once a week to write or give orally a summary of what has been read. The books are retained a fortnight or month, according to the work required, and then exchanged. Each scholar marks any passage or famous lines with a pencil, and calls attention to his work by his initials or class number. It is difficult to get these editions of the English classics from publishers; it is the better way to pick them up on Cornhill, or in second-hand book-stores.

In this way, quite a large collection can be procured for a few dollars.

We never did believe much in compelling scholars to commit to memory ; but with older pupils it will sometimes work well, and in connection with their study of Literature we have required them to commit to memory choice selections, and recite them before the class. Give a few hints and directions at first, and soon the pupil will learn and delight to pick out the best quotations. To start a class in Literature, to excite and maintain interest in its study, demands from the teacher skill, tact, and a thorough knowledge of this branch of study. As Mr. Underwood has said : " The teacher should make a daily study of the author from whom the lesson is to be taken. He should fill out the narrow outline of the biography. He should illustrate and refine upon the critical estimates, giving his own views, and stimulating the pupils to examine for themselves, and to form habits of independent judgment."

A. F. BLAISDELL.

*SCHOOL STATISTICS.**

[We copy the following from the "Brookline Independent," at the request of several teachers, who, perhaps, fear that the "per cent of their grade" may be too low to pass them to the class at which they are aiming.]

'T WAS Saturday night, and a teacher sat
Alone, her task pursuing ;
She averaged this, and she averaged that,
Of all that her class was doing.

She reckoned percentage — so many boys,
And so many girls, all counted,
And marked all the tardy and absentees,
And to what all the absence amounted.

Names and residence wrote in full,
Over many columns and pages, —
Yankee, Teutonic, African, Celt,
And averaged all their ages.

* See Regulations of State Board of Education.

The date of admission of every one,
And cases of flagellation,
And prepared a list of the graduates
For the coming examination.

Her weary head sank low on her book,
And her weary heart still lower ;
For some of her pupils had little brain,
And she could not furnish more.

She slept ; she dreamed. It seemed she died,
And her spirit went to Hades ;
And they met her there with a question fair, —
“ State what the per cent of your grade is.”

Ages slowly had rolled away,
Leaving but partial traces ;
And the teacher's spirit walked one day
In the old familiar places.

A mound of fossilized School Reports
Attracted her observation,
As high as the State House dome, and as wide
As Boston since annexation.

She came to the spot where they buried her bones,
And the ground was well built over ;
But laborers, digging, threw out a skull
Once planted beneath the clover.

A disciple of Galen wandering by
Paused to look at the diggers ;
And, picking the skull up, looked through the eye
And saw it was lined with figures.

“ Just as I thought,” said the young M. D.
“ How easy it is to tell 'em ; —
Statistics ossified every fold
Of cerebrum and cerebellum.”

“ It's a great curiosity, sure,” said Pat ;
“ By the bones can you tell the creature ? ”
“ O ! nothing strange,” said the doctor, “ that
Was a nineteenth century teacher.”

H. W.

SELECTIONS FROM R. H. QUICK.

SACCHINI says, "It is the unvarying decision of wise men, whether in ancient or modern times, that the instruction of youth will always be best when it is pleasantest. The tenderness of youth requires of us that we should not overstrain it ; its innocence, that we should abstain from harshness. That which enters into willing ears, the mind, as it were, runs to welcome, seizes with avidity, carefully stows away, and faithfully preserves."

"When pupils love the master, they will soon love his teaching. Let him, therefore, show an interest in everything that concerns them, and not merely in their studies. Let him rejoice with those that rejoice, and not disdain to weep with those that weep. Let him unite the grave kindness and authority of a father with a mother's tenderness." . . . I think it a mistake to introduce, at an early age, the more thorny difficulties of grammar ; for when pupils have become familiar with the easier parts, use will, by degrees, make the more difficult part clear to them. His mind expanding and his judgment ripening as he grows older, the pupil will often see for himself that which he could hardly be made to see by others. Moreover, in reading an author, examples of grammatical difficulties will be more easily observed in connection with the context, and will make more impression on the mind than if they are taught in an abstract form by themselves. Let them, then, be carefully explained whenever they occur."

"Ordinary teaching," says Montaigne, "gives us only the thoughts of others, without requiring the pupil to think for himself. We suffer ourselves to lean and rely so very strongly upon the arm of another, that by doing so we prejudice our own strength and vigor." . . . "I have no taste for this relative mendicant and precarious understanding ; for though we should become learned by other men's reading, I am sure a man can never become wise but by his own wisdom." . . .
"We only toil and labor to stuff the memory, and leave the conscience and the understanding unfurnished and void ; and, like birds who fly abroad to forage for grain bring it home in their beak without tasting it themselves, to feed their young, so our

pedants go picking knowledge here and there out of several authors, and hold it at their tongue's end only to spit it out and distribute it among their pupils. . " 'T is the custom of schoolmasters to be eternally thundering in their pupils' ears, as they were pouring into a funnel, while the pupils' business is only to repeat what others have said before. Now, I would have a tutor to correct this error, and that at the very first ; he should, according to the capacity he has to deal with, put it to the test, permitting the pupil himself to taste and relish things, and of himself to choose and discern them, sometimes opening the way to him, and sometimes making him break the ice himself ; that is, I would not have the governor alone to invent and speak, but that he should also hear his pupils speak."



SEGMENTATION.

SEGMENTATION is defined by Agassiz as the process by which the egg passes into the perfect organism of the animal. Through it comes the successive isolation of the apparatus and the organs upon which the animal economy depends. It is by no means a creation, for the egg is a living being, but an organic unfolding of the powers by which this being passes from one stage of its existence to another. It is, moreover, a strictly natural process, and will go on whenever the necessary conditions are fulfilled. As far as the researches of naturalists go at present, there can be no animal life without it.

A process strikingly analogous to Segmentation is going on in education. "A system of schools" has been in existence in this country since its foundation ; but when this so-called system is compared with an ideally perfect system, it appears to be as far from it as the life of the egg is from the life of the perfect adult animal : it has life in it, and, just now, the promise of more abundant life ; but it is life struggling for the means of expression ; life without definition of its processes, and devoid of unity of action or aim. Through lack of concentration and of competent supervision, the enormous expenditure of force in public education has not produced adequate results. Forces oppose and neu-

tralize each other instead of co-operating, and the results achieved are rather in spite of our "system" than by reason of it.

But it is a fact, full of encouragement, that all our methods and processes of education are undergoing a rigid scrutiny. The claim of every one to regard and trustworthiness is promptly challenged. College presidents and professors meet grammar masters in council; the Social Science Association brings Agassiz and the primary-school teacher together on common ground, each as interested as the other in the proper teaching of children. The Bureau of Education is, at last, beginning to furnish facts for the foundation of a science, and then a profession of training. The whole community is awakening to a needed sense of duty and a new forth-putting of effort in education.

It is proposed in this article to point out some of the indications in popular sentiment, of an approaching change — already begun indeed — in our theory of education which will lead to a proper isolation of its parts, and the arrangement of those parts in a more enlarged and efficient organism.

The agitation of the High School problem points towards the gradual absorption of the work of fitting boys for college by the academies. In the present condition of affairs, such a step, if taken suddenly, would be disastrous. The argument in favor of "fitting boys" in the High School is a very strong one. But the figures given by President Eliot, which appear to be corroborated in a general way at the other colleges, show conclusively that, with the exception of the Boston Latin School and the Cambridge High School, which have exceptional claims, this work is mainly done in academies now, and the proportion of it done there has been steadily increasing for some years. The researches made at the Bureau of Education, the results of which are tabulated in Gen. Eaton's reports, are exceedingly instructive. Especially noteworthy is the following extract from Prof. Horace Goodhue's address before the Teachers' Association of Minnesota. Quoting in each case the President or Secretary of the college as authority, he says: "At Middlebury one half of the incoming class are from the public High Schools; at Bowdoin, 38 out of 101; at Harvard, 38 per cent; at the University of Vermont, 30 per cent; at Dartmouth, 14 out of 47 'already examined'; at

Williams, not more than one sixth. The total in all the colleges reporting who have fitted at the High School is 584 ; at the Academy, 1,355 ; or, 30 per cent at the High School and 70 per cent at the Academy. Phillips Academy, Andover, for twenty-eight years ending with 1861, sent over 1,000 to college, while it took the Boston Latin School forty-six years, ending with the same date, to send 600. Williston Seminary during the last ten years has graduated 300 and sent 200 to college."

It is well known that the work done at Phillips Exeter Academy is almost exclusively fitting boys for college, and that some of the best of our New England scholars received their early training there. If, now, it is urged that the quality of the fitting work done at the High School is equal to that of the Academy, or better, the answer will be from a very large number of the best friends of the High School, that it must be for that reason inordinately expensive ; for the five or six boys fitting in the High School will have received the same teaching as has been devoted in the Academy to five times the number.

A gentleman in private conversation recently uttered a thought which has taken more or less definite shape in many minds : " It would be better for us," he said, " to pay the expenses of our boys who are fitting for college at Phillips Academy, and let our High School teachers spend their strength on the others." To this a by-stander objected that it would be penny-wise and pound-foolish to send out of the school the purely scholarly boys ; and that the influence of one fine lad of high scholarly ambition is worth to the town all that it costs to fit him for college. The ready reply was, " In my judgment, the presence of a college class in the High School generates a feeling of inferiority amongst the other boys which is the main reason for their scarcity in the graduating classes."

Another important motive is operating with more or less force upon the minds of large numbers of people, namely, the advantage to any denomination, of schools controlled by members of that denomination. Probably a large number of people are in favor of withdrawing youth of both sexes from the care of the state as soon as the elementary period is passed, and consigning them to the care of strictly denominational schools. The Catho-

lics have urged and carried out this policy more pertinaciously and more extensively than any other class; but this very movement on their part has developed activity in other directions. The Baptists have a school in New York sustained in part by a moiety of the public money, and are actively engaged in securing a competent endowment for the Worcester Academy and other similar schools. The Episcopalians have flourishing parish schools in many parts of the West, the main idea of which is to conduct the secondary and higher education of youth under denominational influences. Many prominent clergymen and laymen of this order are strongly in favor of this plan. These examples may serve as illustrations of a sentiment more or less prevalent in every denomination in favor of special schools for secondary and higher education.

From an entirely different standpoint, namely, the place and power of the American College, ex-President Walker argues for a wholly new kind of schools to cover the Freshman year, and Dr. McCosh points out with great force and clearness that the immediate and pressing need in this country is of secondary schools. The argument against further appropriations of public land in aid of Agricultural Colleges so ably put by Mr. G. F. Hoar gets all its force from his clear perception of the crying need of more and better schools below the grade of these colleges.

These points are made not as against the High School, or in favor of the Academy, but for the purpose of indicating the drift of thought on the subject of secondary education towards a more complete isolation of its parts. The end towards which it seems to be tending is, first, the enlargement of the work of the Academy till it becomes a fitting school for an enlarged and purified college; and, secondly, making the study of the classical languages in the High Schools a means to the end of a broader English education, which shall fit youth for technical schools, and for immediate entrance upon the practical duties of life.

[To be continued.]

"ROGER ASCHAM'S 'Schoolmaster' contains, perhaps," says Dr. Johnson, "the best advice that was ever given for the study of languages." * And Mr. J. E. B. Mayor (no mean authority) ventures on a still stronger assertion. "This book sets forth," says he, "*the only sound method of acquiring a dead language.*" Mr. George Long has also borne witness on the same side.

And yet, I believe, few teachers of the dead languages have read Ascham's book, or know the method he proposes. I will, therefore, give an account of it, as nearly as I can in Ascham's own words.

Latin is to be taught as follows : First, let the child learn the eight parts of speech, and then the right joining together of substantives with adjectives, the noun with the verb, the relative with the antecedent. After the concords are learned, let the master take Sturm's selection of Cicero's Epistles, and read them after this manner : "First, let him teach the child, cheerfully and plainly, the cause and matter of the letter ; then, let him construe it into English so oft as the child may easily carry away the understanding of it ; lastly, parse it over perfectly. This done, then let the child by and by both construe and parse it over again ; so that it may appear that the child doubteth in nothing that his master has taught him before. After this, the child must take a paper book, and, sitting in some place where no man shall prompt him, by himself let him translate into English his former lesson. Then showing it to his master, let the master take from him his Latin book, and, pausing an hour at the least, then let the child translate his own English into Latin again in another paper book. When the child bringeth it turned into Latin, the master must compare it with Tully's book, and lay them both together, and where the child doth well, praise him, where amiss, point out why Tully's use is better. Thus the child will easily acquire a knowledge of grammar, and also the ground of almost all the rules that are so busily taught by the master, and so hardly learned by the scholar, in all common schools." "We do not condemn rules, but we gladly teach rules ; and teach them more plainly, sensibly, and orderly than they be commonly

* Life of Ascham.

taught in common schools. For when the master shall compare Tully's book with the scholars' translation, let the master at the first lead and teach the scholar to join the rules of his grammar book with the examples of his present lesson, until the scholar by himself be able to fetch out of his grammar every rule for every example ; and let the grammar book be ever in the scholars' hand, and also used by him as a dictionary for ever present use. This is a lively and perfect way of teaching of rules ; where the common way used in common schools to read the grammar alone by itself is tedious for the master, hard for the scholar, cold and uncomfortable for them both." And elsewhere Ascham says : "Yea, I do wish that all rules for young scholars were shorter than they be. For, without doubt, *grammatica* itself is sooner and surer learned by examples of good authors than by the naked rules of grammarians."

"As you perceive your scholar to go better on away, first, with understanding his lesson more quickly, with parsing more readily, with translating more speedily and perfectly than he was wont ; after, give him longer lessons to translate, and, withal, begin to teach him, both in nouns and verbs, what is *proprium* and what is *translatum*, what *synonymum*, what *diversum*, which be *contraria*, and which be most notable *phrases*, in all his lectures, as,—

Proprium . . . Rex sepultus est magnifice.

Translatum . . . Cum illo principe, sepulta est et gloria et salus rei-publicæ.

Synonyma . . . Ensis, gladius, laudare, prædicare.

Diversa . . . Diligere, amare, colere, exardescere, inimicus, hostis.

Contraria . . . Acerbum et luctuosum bellum, dulcis et læta pax.

Phrases . . . Dare verba, abjicere obedientiam."

Every lesson is to be thus carefully analyzed, and entered under these headings in a third MS. book.

All this time, though the boy is to work over some Terence, he is to speak no Latin. Subsequently the master must translate easy pieces from Cicero into English, and the boy, without having seen the original passage, is required to put the English into Latin. His translation must then be carefully compared with the original, for "of good heed-taking springeth chiefly knowledge."

— R. H. Quick's Essays.

A VERMONT DEPARTMENT OF THE TEACHER.

WE are happy to announce that, with the April number, we shall increase the size of the "Teacher" by the addition of eight pages, edited by a Vermont educator, and constituting a distinct department.

We hope our friends in Vermont will see to it that we have a large increase to our subscription list in this new partnership. The Bay State and the Green Mountain State have always walked hand in hand, politically; and certainly our educational interests are one.

DR. ARNOLD has said, "It is clear that in whatever it is our duty to act, those matters it is also our duty to study."

We have no doubt it was clear to Dr. Arnold, and that a conscientious performance of this duty was the secret of his eminent success and his world-wide reputation as a teacher. But is it so clear to most people as to lead to practical results? Do teachers, as a rule, before assuming the responsibility of the discipline and instruction of a school, feel it to be their duty to prepare by a regular course of study? The lawyer and the physician act on this principle; but how many young men are there, who, having graduated at a college, though they have never read a book on principles and methods of instruction, decline to take a school because "they have not studied those matters on which it will become their duty to act"? How many of the 8,000 female teachers of Massachusetts felt it to be their "duty" to "study" principles and methods of discipline and instruction, to prepare themselves for the duties of the school-room, before assuming its responsibilities? A very small proportion of those who are found in our schools. And yet the success of those who have made this preparation, and who are availing themselves of every means of improvement, is so manifest to any one competent to judge, that it requires only intelligent supervision of our schools to show the difference between "teaching" school and merely "keeping" it. We say, then, that supervision by persons who have made a study of educational principles and methods is the great want of our schools. If we are told that *intelligent teaching* is essential to progress, we admit it; but examination by the best methods will call for the best methods in teaching. The law of demand and supply is the same here as in political economy.

Now, it is no imputation upon the intelligence of school committees to say that they are not, as a rule, competent to examine a school, and to instruct or advise teachers as to the best methods of teaching. Men who have spent their time in the school-room as teachers, although intelligent, would hardly be selected to examine and report upon matters of a commercial character; and if teaching is the only branch of industry (except that of the unskilled laborer) which requires no special preparation, and in which experience is of no account, it is certainly presumption to speak of it as a profession, or even as a trade.

The statement of Dr. Arnold, which we have placed at the head of this article, applies not only to teachers but to committees as well; and what proportion of intelligent business men elected to the office of school committee have the time and inclination to make such a study of pedagogy as to enable them so to examine and advise as to improve the methods of instruction in our schools?

What we want, and what we must have, before we can determine how much our pupils are capable of doing, is a corps of *thoroughly prepared teachers*, subject only to the supervision of *educational experts*.

WE have received the catalogue of the West Newton English and Classical School established in 1854 by the present principal Nathaniel T. Allen, and "Father Peirce." Mr. Allen had charge of the Model Department connected with the first Normal School in America.

With such teachers it is not strange that this school took a high rank from the first; and the fact that Mr. Allen has had charge of it to the present time accounts for its continued and growing prosperity.

At a reunion of those who had formerly been pupils of the school, in connection with a reception to Mr. Allen, who had been absent in Europe two years on an educational tour, many gentlemen holding high positions in the community testified to their appreciation of the excellence of this school, and their respect for Mr. Allen. We are glad to see that the school is at present in a very prosperous condition.

The system of instruction in the several departments, as given in this pamphlet, is an interesting and instructive paper, which we hope to publish in the "Teacher," containing, as it does, the views of Mr. Allen on the subjects and methods adapted to mental development from the earliest stages.

THE CHILD'S BOOK OF NATURE,

PUBLISHED by Harper Brothers, has for some time been an "allowed" book in the Boston schools, and we are happy to see that its use in the schools in which it has been introduced has proved so satisfactory that it is now made a *required* book in all the schools.

This book is, we believe, a universal favorite with good teachers, and interesting to pupils, when used according to the design of the author. It will stand the test of anything but the humdrum *memoriter* recitations, which, out of place anywhere, are especially so in introducing a child to the study of Nature.

CLASSICAL AND HIGH SCHOOL TEACHERS' ASSOCIATION.

THE Seventh Annual Meeting of the Massachusetts Association of Classical and High School Teachers will be held in Worcester, in the High School building, Walnut Street, on Friday and Saturday, April 10 and 11, 1874, commencing at 10 A. M.

SUBJECTS FOR DISCUSSION.

1. Method of studying Geometry. (10.30 A. M.)
2. The study of English Literature in connection with the study of Classic Literature. (11.15.)
3. The pronunciation of Latin. (2 P. M.)
4. To what extent, and how, shall the modern languages be taught in our High Schools? (3.30.)
5. Physical Education. (Evening, 7.30.)
6. Treatment of Latin and Greek Composition. (8.30.)
7. How can the Preparatory Schools best meet the increasing requirements both of the Technical Schools and the Colleges? (Saturday, 9. A. M.)
8. The difference between the aims and results of secondary education in Europe and America. (11.)

A full attendance is requested. Brief essays on most of the topics will be presented. It is hoped that every Teacher will prepare himself to take part in the discussions.

CHAS. HAMMOND, *President.*

W. F. BRADBURY, *Rec. Secretary.*

ASKING QUESTIONS.

I SEND my method of asking questions to the "Teacher," hoping that it may help teachers whose scholars ask a great many questions. The questions about the lessons are the most important ones to be answered:—

For them, raise the right hand. Questions about leaving the room are next in importance. For them raise the right hand closed with the exception of the first two fingers.

For questions neither about the lessons nor leaving the room, raise the right hand closed with the exception of the forefinger.

It is not always easy to judge whether a question is necessary or not till you know what the question is.

In schools where there are scholars who will take advantage of a teacher by asking the same question twice, I think that this method will be found very convenient.

The scholars in my room learnt it very readily, and seldom make a mistake in raising their hands.

I have tried it three months and find that it saves me much time and talking, for I can tell at a glance what is wanted, without asking what the question is.

M. E.

FAITH AND KNOWLEDGE.

Two jolly professors were leisurely walking
 The streets of a far Western city, and talking
 Of all sorts of matters that happened to strike 'em,
 Of shop-signs, and door-plates, and everything like 'em,
 Suggestive of nonsense, of wisdom, or wit,
 Looking chiefly for sport, — to make a good hit, —
 When T. saw "J. Rex" on a door-plate, and mused
 As he said to Prof. W., slightly confused,
 And taking a whiff (for Prof. T. was smoking),
 "Do you s'pose that's his name, or is he only 'jo-king'?"
 For a moment the Prof. looked as blank as a leek, —
 For his specialty was not in Latin, but Greek, —
 Then exploded, and laughed out of all sort of reason,
 Declaring it to be the best pun of the season.
 He told it his friends, and laughed louder than ever,
 Who all were agreed that the bon-mot was clever.
 But of all those who heard it, you scarcely would see
 One who seemed to enjoy it as much as T. B.
 He laughed when first told him, and every time after,
 Grew purple and chuckled with violent laughter.
 Some weeks passed away, and some one was repeating
 The story, while T. B. his luncheon was eating.
 "Very good," said a pedant, proud of his Latin,
 Who it happened was near the chair that he sat in,
 "Yes, Rex is the Latin for king," — and he looked
 As if conscious 't would show that he was well "booked."
 "Is it? is it?" said T. B., his face all aglow;
 For before he had laughed upon *faith*, you must know.

THE STUDY OF GRAMMAR IN GRAMMAR SCHOOLS.

Lecture delivered before the Plymouth County Teachers' Association, by B. F. Tweed.

LADIES AND GENTLEMEN:

I recollect hearing a discussion some years ago between two boys, one about ten and the other perhaps twelve years of age, on the study of grammar.

The younger began it by asking when he would begin to study grammar.

"Why," said his brother, "you are studying grammar now."

"No, I *aint*," said the younger. "I am studyin' the '*nals* o' language."

"Well," said the elder, "that's grammar."

"No 't aint," insisted the younger. "Grammar is third person, singular number, nominative case. Aint it, Mr. T.?"

Not wishing at that time, and before such an audience, to go into a critical examination of the exact province of grammar, I am afraid that I accepted the boy's definition as being most in accordance with the general notion of grammar, judging by the way it is commonly taught.

Since then I have heard the same question discussed by older people, but I am not sure that I have heard a more satisfactory definition. Indeed, though grammar has always been recognized as one of the regular branches, and, in fact, has given name to one class of schools, there is no branch about which there has been such a diversity of opinion and practice among teachers, at any given time, and such changes and fashions at different times.

Perhaps the most remarkable instance illustrating this statement occurred in Boston, somewhere about 1840, or between 1840 and 1845.

Now, ladies and gentlemen, don't suppose, as I relate this, that I am drawing on my imagination for facts. It is all veritable history, all of which I saw and *no* part of which I was.

A Mr. James Brown, of Philadelphia, made a grammar, and came to Boston with the intention of introducing it into the Boston schools.

He claimed to have greatly simplified the subject, and rescued it from an unmeaning jargon of nonsense; and a large number of the masters of the Boston schools, some of whom are now living, petitioned the committee to introduce it into the grammar schools.

It began with the assertion that every nation has its own phrenod, — a phonod and an alphod; that such a combination of words as forms a cordiction is a gnomod; that grammar is divided into Monology, Dendrology, Deicology, Epideicology, etc.; that Monology is the science of monos, — of which, I think, there can be no doubt; that a mono may be broken or unbroken, of the uni or plus relation.

Then we had a dissertation on corms, pœcorms, and nepœcorms, clades, etc.

Mr. Brown declared that what we were teaching as grammar was the merest nonsense, and many of the teachers admitted its truth, — I am inclined to think, not without some reason, — and wished the committee to introduce the simplified and improved system of Mr. Brown into the Boston schools.

I never could fully understand and account for this preference, except on the theory that Boston being the Athens of America, the masters naturally affected the Greek nomenclature of Mr. Brown.

The committee, however, many of whom had never been to college, and to whom the book was "all Greek" in more senses than one, refused the petition of the masters, preferring, I suppose, that the text-book for English grammar should be in the English language, even if it was somewhat technical and stiff.

Since then we have had periods when the "'nals o' language" has been in vogue, almost or quite to the exclusion of "third person, singular number, nominative case," — or parsing, and others when parsing has had the field almost to the exclusion of analysis.

Sometimes a *large* book has been called for, or two or three books, and at present we hear it asserted that ours is almost a grammarless language, and that all we want is a very small book, if any; for there are not wanting those who advocate dropping it entirely from our grammar schools.

Now, with all this experience of the past and disagreement of opinion at present, is there any common ground on which all can be brought to stand, that shall rescue English grammar from the odium which attaches to it, and make it a valuable and practical exercise in our schools? Logicians tell us that the best way to settle controversies is to go back to definitions. Let us try it.

I believe that all our common school grammars, with perhaps the exception of Mr. James Brown's, agree that "English Grammar is the art of speaking and writing the English language correctly."

May we not, then, keeping this definition in view, all set about imparting to our pupils the ability to speak and write correctly?

Undoubtedly we should have a diversity of methods, but let us all aim at the same result; and in our examinations for promotion, etc., let the test of the pupils' success in grammar be, not the ability to give grammatical definitions and rules, most of which are unsettled and doubtful, nor parsing, nor analysis, but the ability to express what they know on a subject correctly, both in oral and written discourse.

The most successful teachers would of course be those who themselves had the most comprehensive and accurate knowledge of the language, and who secured the greatest amount of judicious practice on the part of the pupils. And this practice might begin at a very early stage in the pupils' progress.

Every one familiar with young children must have observed how soon they recognize the grammatical forms and inflexions of the language.

Children in the lowest classes of the grammar schools and even in the primary schools recognize the regular forms of the degrees of comparison, of the plural of nouns, of the cases and genders of pronouns, and to a considerable extent, of the moods and tenses of verbs; and their chief mistakes arise from not knowing what words are irregularly inflected. Thus we hear *gooder, mans, runned, etc.*

We may begin, then, with the elementary combination of words, — the simple sentence. Write on the blackboard, for instance, "The boy loves his mother." Now, let the pupils exert their ingenuity in putting this in the form of a question. Then add the word "yesterday," and let the pupils change the verb to correspond. Then substitute "to-morrow" for "yesterday," and very young pupils may be taught to make the necessary changes.

In this way pupils acquire the power of forming sentences and changing them from the declarative to the interrogative form, and of using the principal moods and tenses.

An exercise similarly conducted may teach them the proper use of the several numbers, cases, and genders of the pronouns; and so nearly or quite every inflection in the language may be taught practically before pupils even suspect that they are studying grammar.

These exercises should be both oral and written, and, if the teacher has not time, it may be taken from the spelling lesson ; for, while teaching this, by requiring the pupils to make sentences containing certain words, it will be the best spelling lesson that can be given.

Let me not be told that this is all very well in theory, but it can't be done in practice.

Within a month I have taken classes that knew nothing of grammatical terms, and by questioning have got the pupils to change the declarative to the interrogative form, to vary the verb to express present, past, and future time, to vary the adjectives to express the degrees of comparison, and the pronouns to show the gender, number, and case. The facts may thus be learned before the grammatical terms, and when recognized, it will be easy to teach the terms.

But it may be said this is not grammar. Whether grammar or not, however, it secures that which it is the purpose of grammar to teach, if we recur again to our definition ; and, in connection with these exercises in writing, I would have the parts of speech learned, not by an abstract definition, which if true the pupils are not able to comprehend, but by calling their attention to the several *uses* of the words in forming a sentence. The *relations* of words on which depend the inflections may be taught in the same manner. Definition is a later process, after the *facts* are learned in their concrete form. Take for example the rule that "A verb must agree with its subject in number and person." Now, leaving out of the question the difficulty of making a child understand what is meant by person and number as applied to the verb, what *fact* does this rule give that will enable the child "to speak and write correctly"? The fact I suppose to be simply this: that the *form* of the verb is changed when used in the indicative present and perfect with a subject of the third person, singular. In the irregular verb "to be" there is a little more change of form. Let these definite facts be illustrated, as they easily may be by their use in simple sentences, and the child *has* learned something that will help him "to write and speak the language correctly." When the pupil has acquired a considerable degree of facility and correctness of verbal expression, it will be soon enough to begin to generalize and learn grammatical principles.

A simple form of analysis which the pupil has learned in distinguishing the parts of speech I think should precede syntactical parsing, and parsing should be understood to be entitled to but a small portion of time. While it does not teach pupils in the early stages "to speak and write correctly," it gives but a very imperfect explanation of grammatical forms and constructions when language is examined critically. Thus "teach" is an irregular verb, and "go" is an irregular verb ; and here parsing leaves them, with the statement that they do not form their past tense and perfect participle in "d" or "ed." But this is not the essential distinction. "Taught" was regularly derived from "teach," and we call it irregular simply because the process has now become obsolete. But "go" is a defective verb, not used in the past tense, and the defective verb "went," used only in the past tense,

is pressed into service to supply the deficiency. So of the adjectives "good," "better," and the pronouns "I," and, "me,"—they are not etymologically related, but *defective*, and put together for convenience. What we call the verb "to be" is a patchwork of several defective verbs. But I object to the prominence given to parsing not only because it gives but an imperfect explanation of grammatical forms and constructions, but because, in many instances, it gives *false* impressions, by making similar constructions appear to be unlike.

"The man was known to me," and "The man was unknown to me," are precisely the same in construction, but parsing gives a pupil the idea that they are as unlike as possible. I repeat, then, that parsing not only does not give the essential facts of language, but frequently misleads by making what is alike in construction seem widely different. And this leads me to say that no one is qualified to teach grammar who has not studied it historically. As Latham says, it contains many constructions that cannot be logically accounted for. Of all critics, deliver me from one who can parse the most difficult sentences, but who has no knowledge of the changes which have taken place in the language since it ceased to be pure Anglo-Saxon. In a living language that is constantly changing, and especially in a composite language like ours that has taken so much and is ready to take so much more from other languages, there are many words that we have to take "on the wing." A large part of the questionable forms are forms that are in a state of transition, and we must know their *course*. Of two forms, which is the old, and which the new? Has the old form become obsolete, or is it still allowable? Has the new form received the sanction of good writers? These questions are to be asked of individual words; and here, in many instances, the grammars and dictionaries fail us, and we are obliged to rely on our own judgment.

A large number of verbs are given as regular, or irregular; and while we may be sure that the irregular is the old form, we must decide whether the new form is sanctioned by good use. The same may be said of the spoken language. We have, at any given time, words in every stage of advancement towards being perfectly anglicized.

As a teacher of elocution and English literature, I think that in nine cases in ten, when I have been consulted with reference to doubtful orthography or orthoepy, or grammatical inflections, it has been with regard to this class of words; and I repeat that one can get no satisfaction from, or is misled by, the dictionaries, unless he knows as much about it as the dictionary. Take "menagerie," for instance.

Worcester gives us "authority" for two forms of spelling, and two of pronunciation,—omitting only the one which, if not most common now, certainly will be when the word is perfectly anglicized. Thus, "Menagerie, Menagery. Pronounced (Me-näzh'-er-ē, Men-äzh-e-rē'.) Now, I suppose this word came to us from the French, and was pronounced "Menäzherie," with as little accent as possible. The first step towards anglicizing was to give it the English accent (Menä'zhérie); the next step would be, or will be, to

change the sounds of "a" and "g" to English, and the last to change the French "ie," in the last syllable, to the English form "y." It will then be perfectly anglicized.

At the present time, if I should ask each teacher present to pronounce and spell the word, I have no doubt that I should get nearly every stage in the process. All, I think, would agree to give it the English accent, but some would say "näzh," some "näzh," and some "näj," though I doubt if any one would dare to change the termination to conform to English analogy.

What, then, shall we do with words that are in this transitional state? In the absence of fixed authority, or when "doctors disagree," we ought to know how the word is tending, and as fast as, in our judgment, good usage will permit, let us reduce it to English analogy. As I stated before, a very large part of the words and constructions that are matters of debate are of this class. For instance, revery, prestige, chivalrous, discrepancy, demonstrate, concentrate, etc.

The order, then, thus far in which I would teach grammar, or "the art of speaking and writing correctly," should be that which I have already indicated, viz. conversation, in which I would make and invite criticism, frequent exercises in writing, beginning at a very early stage of the pupil's progress, never requiring the pupil to write on a subject with which he is not well acquainted:

Teaching the several parts of speech by a simple process of analysis, rather than by formal definition:

Parsing to the extent of showing such relations as are indicated by inflection and arrangement; then such facts as are not included in parsing and analysis, but which are necessary to an accurate use of language either in speaking or writing.

With regard to definitions, let me not be misunderstood. Definitions, when perfect and fully comprehended, give clearness and accuracy to our statements, and assist greatly in the retention of knowledge. But of all things grammatical definitions are the most vague and uncertain.

Dr. Latham, the great grammarian, says that of every hundred statements in our grammars, he does not hesitate to say that ninety-nine of them come under one of these two categories; they are either false, or, if true, were known to the pupil before, and therefore unnecessary.

This may seem to many an exaggerated statement. I confess it struck me so, at first. But when I came to test it, I was prepared to admit its truth. We have already seen that one of the rules of most common application, — that "A verb must agree with its subject, etc.," — is not true as a general rule. The whole subject of mood and tense is in the same unsatisfactory state so far as definition is concerned. The potential *declares* just as much as the indicative, and instances are not rare where the tenses not only cannot be determined by the definition, but are in direct violation of all use which could be inferred from the definition. Dr. Latham also tells us that "most of the grammatical definitions are unsettled," that "no cautious grammarian will answer the question how many *cases* there are." "It depends," he says, "on

our definition of case"; and here grammarians are not agreed. At the meeting of the State Teachers' Association, held at Worcester last year, considerable time was occupied in the discussion of this very question; and the diversity of opinion was very great. So much interest was manifested, and so much feeling excited, that it has been continued in our educational journals. An internecine "war of words" between Westfield on the one side, and Springfield and Monson on the other, has been raging in the very heart of the Commonwealth, on a question that is often made a test of qualification for promotion from the grammar to the high school.

Is it worth while to occupy the time of teacher and pupil on these abstract definitions, which have no practical value, and about which teachers themselves are not agreed?

Even grammar-makers are obliged to give *equivocal* definitions, for fear of going counter to the ideas of some teachers. Thus, in a grammar very much used in our schools, we have this definition of the nominative case: "The nominative case is that *form* or *state* of a noun or pronoun used as the subject of a Verb." Undoubtedly. But which? The *form*, or simply the *state*? If *form*, the definition applies as well to the *objective* case of nouns, and some pronouns, as to the nominative; and we have, in fact, but *two* cases of nouns.

If the *state* or *relation* constitutes case, then no nouns or pronouns are in the nominative case unless used as the subject of a verb, *i. e.* there can be no predicate nominative, or nominative independent; and there are as many cases as there are possible relations of nouns and pronouns to verbs, for the same author tells us that "cases are distinctions based on the *relations* of nouns and pronouns in sentences."

Similar criticisms may be made on Mood, Tense, etc. (See Kerl's Grammar, 146 p.)

I know of nothing more stultifying than requiring the pupil to commit to memory something that conveys *no distinct* idea, — or if it conveys an idea, one so erroneous that when he comes to apply it he finds it impossible.

Suppose that after committing all that is said about Mood and Tense, I require the pupil to apply his definitions in parsing the following sentences: "I will go to-morrow." "I may go to-morrow."

Will it be easy for me to make the pupil understand that "will go" is in the *indicative*, because it indicates or asserts, and that "may go" does not assert? Or again that "will go" is future tense, because it expresses future time, and that "may go" is present tense, because it expresses *present* time?

Such are some of the difficulties if we undertake to teach grammar by the definitions. They might be multiplied to any extent. Even in the sentence that I have just uttered, "might be multiplied" is in the past, or imperfect tense, not because it expresses *past* time, for it doesn't, but because it has that form.

I may be reminded that it is easier to find fault with what is done than to tell what ought to be done. As Portia says, "It is easier to tell a thousand

what it were good to do, than to be one of a thousand to follow my own instructions."

But I think I can tell what I would do in teaching grammar in our grammar schools. As I said before, I would try by daily exercises in writing to teach the scholars to write the language correctly. I would teach them to discriminate the parts of speech by their use in the sentence. I would teach them for convenience the most common grammatical terms and their application.

But I would not insist on their learning by heart definitions which express to them no meaning, and which would be pronounced false by many grammarians.

Above all, I would depend on exercises in composition for the ability to write correctly.

The young man who resolved never to go into the water till he had learned to swim made no greater mistake than those who undertake to teach the correct use of the language by any other method than by writing and speaking it.

It is so with every art. A study of the formal rules of logic does not necessarily make a good reasoner, any more than a study of Izaak Walton will make a skilful fisherman without practice.

I have thus spoken of grammar as the *art* of speaking and writing correctly. This, I take it, is all we directly aim at in our common and grammar schools.

Whatever is obtained beyond this, of a disciplinary character, will be more sure to come if we teach it in this practical and common-sense way, than if we make mental discipline the direct aim.

That in more advanced stages the study of grammar may be pursued as a branch of metaphysical science, and by other methods, I admit.

Prof. Atkinson, of the Institute of Technology, tells me that in the examination of young men for admission to that institution, he finds that those who pass the best examination in analysis and parsing are not uniformly or commonly those who pass the best examination in composition.

And I have myself evidence tending in the same direction.

In preparing questions for admitting pupils to our High School, I have given five questions on technical grammar, marking them on a scale of *ten*, and an exercise in composition, marked on a scale of *fifty*; and by a careful examination of the papers I do not find that skill in parsing is evidence of the ability to write correctly. On the contrary, some schools that do not give the best specimens of parsing yet give the most correctly written compositions. You will not on this account infer that I consider parsing an obstacle to correct writing, except so far as it takes the time and attention which might be given more profitably to composition.

If, then, the grammar that we teach in our common schools is properly defined as "the art of speaking and writing the language correctly," it follows, I think, that *conversation* and *composition* are the principal means of teaching it.

Conversation, I think, has much greater value as an *educational* force than we have generally assigned it; and by conversation I do not mean what Cowper calls "a *duel* in the form of a debate."

I mean a free and easy talk with pupils on some interesting subject, in which a genial criticism, whether of pupil or teacher, is allowed; and the teacher should make himself a party to the conversation, rather aiding his pupils by suggestive hints and questions than pronouncing authoritative conclusions. The man who can get his pupils to converse with the greatest freedom is, I think, generally the best teacher.

After such an exercise as this in learning to *speak* correctly, what better exercise can we have in writing than to require the pupils to put their views on the subject upon paper?

I have thus endeavored to state some of the methods by which I would teach grammar. They are all reducible to one principle announced by the great Teacher. "Ye shall know, . . . if ye *do*."

In this respect artisans, as carpenters, blacksmiths, etc., have been wiser than, — I will not say the children of light, — but wiser than many school-masters.

SPELLING.

"I KNOW a person of great quality," says Locke, "(yet more to be honored for his learning and virtue than for his rank and high place), who, by pasting on the six vowels (for in our language 'y' is one) on the six sides of a die, has made this a play for his children, that he shall win who, at one cast, throws most words on these four dice; whereby his eldest son, yet in coats, has *played* himself into *spelling* with great eagerness, and without once having been chid for it or forced to it."

[Extracted from a Honolulu paper, for the Teacher.]

A HONOLULU SCHOOL.

FORT STREET SCHOOL — Corner of Fort and School Streets. This Public School consists of Primary, Intermediate, and Grammar School departments.

The following is the curriculum of study in the Grammar School department: —

Rhetoric and Composition. English Grammar and Analysis. Spelling and Defining. Practical Arithmetic, — a thorough course with special reference to its every-day business use. Descriptive and Physical Geography. History. Science of Common Things. Vocal Music. Penmanship.

The following High School studies are elective. Classes will be formed when two or more pupils shall be found to enter them: —

Algebra. Book-keeping. Natural Philosophy. Physiology. Latin.

The course of instruction in the Intermediate Department is: —

Mental Arithmetic — thorough course. Geography and Map Drawing — Primary. Reading — Intermediate or Third Reader. Spelling. English Grammar — Elements. Penmanship and Elementary Drawing. Singing — song singing by rote.

The course of instruction in the Primary Department is : —

Reading — Primer through Second Reader. Mental Arithmetic — Elementary. Geography — first steps. Penmanship and Elementary Drawing. Singing — song singing by rote.

It is the desire of the Board of Education to meet, as far as is in their power, the wants of a large number of the citizens of this community, who wish to secure to their children a *practical education*, the expenses of which shall be commensurate with their means.

TERMS: *Five* dollars per quarter, or *twenty* dollars per annum for each pupil in any of the departments. For any deviation from these rates, application must be made, either personally or by letter, at the Education office.

H. R. HITCHCOCK,

Inspector General of Schools.

Education Office, Honolulu, Sept. 26, 1873.

[*From the Report of the Superintendent of Charlestown Public Schools, 1873.*]

THE course of study in our grammar schools is the result of long experience, and, I believe, requires no *radical* change. As more intelligent teaching secures more time, there will undoubtedly be modifications of the course, and additions to it ; and these modifications will be in the future, as they have been in the past, tending to a more complete and practical education for the great mass of pupils. We not unfrequently hear the complaint that too much is required of the pupils, and that the introduction of drawing, music, etc., takes just so much from the thoroughness with which the ordinary branches are taught. On the other hand, we are met with the complaint that so little is accomplished during the six years of the grammar school course. I think there is some ground for both these complaints. The introduction of new studies must, of course, take from the time formerly devoted to the meagre course of our grammar schools ; and if no improvements are made in our processes of teaching, there may and must be a loss in thoroughness.

It is believed, however, that so much more can be accomplished by intelligent teaching than has been by the routine methods of those who have had no special preparation for their work, that we have not yet given our pupils as much to do as they can do thoroughly, under the most intelligent instruction. Experience, however, has shown that attention to these branches has not been attended by any falling off in the other branches. Their

introduction has made school pleasanter, and produced a degree of interest and activity that has reacted favorably on all school studies. Should more time be wanted, I think I see where it may be gained from the ordinary course. *Intelligent teaching* can impart a better and more practical knowledge of geography in half the time that we have usually had. The same may be said of grammar; and I believe a better knowledge of the practical rules of arithmetic may be acquired in a considerably less time than we now devote to it; and instead of its being done at the expense of thoroughness, I think we may add to the thoroughness. When Judge Story was asked why he made so large a book on a certain subject, he said, "Because I had not time to make a smaller one." Paradoxical as this may seem to some, it was probably true; and if so, the book must have contained much perhaps in some way, more or less remotely, relevant to the subject, but not necessary to its development.

So in teaching. As our teachers are more thoroughly prepared, so that they can eliminate all that is not strictly necessary, the principles now buried under different forms will be found to be few and very simple. In a popular text-book on arithmetic, I find a rule for dividing a fraction by a whole number; another for dividing a whole number by a fraction; another for dividing a mixed number by a whole number; another for dividing a whole number by a mixed number; another, which should have been the first and only rule, for dividing a fraction by a fraction; another for dividing a mixed number by a mixed number; and still another for reducing a complex fraction to a simple one.

When the pupil has learned, as he is supposed to have learned, in this book, that a whole number may be written as a fraction by placing the denominator one (1) under it, and how to change a mixed number to an improper fraction, there is but one principle and one process to be learned, instead of seven, as given in the book. Nor is it wholly loss of time and tax on memory that I complain of. The impression is given that there are seven different things, when, in fact, there is but one. Thus we meet, at every turn, the necessity for a more thorough preparation of teachers.

Mr. Mann saw this in 1840; and all experience since proves that, after providing good accommodations and apparatus, the question of progress depends chiefly on the preparation and fitness of teachers. Notwithstanding all that has been done by our normal schools to give us the best teachers,—and they have done much,—we are still far behind several of the European countries in this regard, even when we make this preparation an essential requisite.

INTELLIGENCE.

PERSONALS.

EDWARD H. PEABODY, Esq., of Worcester, is principal of the Pratt Free School, Middleboro'. Mr. P. graduated from the Normal School at Bridgewater, in 1863, after which he taught the Reading High School several years, but has of late been associate editor of one of the leading dailies of Worcester.

ALONZO MESERVE, Esq., usher of the Bigelow School, South Boston, has been appointed sub-master of the Prescott Hill School, Charlestown.

J. GARDNER BASSETT, Esq., of Bridgewater, has been appointed usher in the Bigelow School. Mr. B. leaves a most excellent mastership in Fall River, where every effort was made to retain him.

HENRY SAWYER, Esq., of Natick, is elected usher in the Dwight School, succeeding Mr. Parker, promoted. Mr. S. did good work in the Natick Grammar School, and enters upon his new field of labor under most favorable circumstances.

Miss H. AMELIA SMITH is appointed teacher in the Lewis School. She formerly had a successful experience in Mr. Clark's School, South Boston.

Miss ROXANA W. LONGLEY is appointed teacher in the Franklin School, Boston.

Miss KATE A. MASON is elected teacher in the Dearborn School, as is Miss MARTHA D. CHAPMAN.

Miss MARY M. CLOONEY is appointed to the High Street School.

Miss CLARA M. SYMONDS, of the Rice Grammar, and ABBIE D. HAWKES, of the Brimmer, have resigned.

Mr. J. M. DILL, usher of the Quincy School, is elected sub-master of the Andrew School, South Boston. Mr. Dill's record is one of the clearest and brightest of any young teacher in the State. He graduated from the Bridgewater Normal School only eighteen months since, and by hard work and merit has risen by four steps to his present honorable position.

Mr. JONATHAN KIMBALL is elected superintendent of the Public Schools of Chelsea, at a salary of \$2,500. Mr. K. is best known to the teachers of the State as superintendent of the Salem schools, which position he occupied for several years. He has of late been superintending the schools of Wakefield.

SILAS H. HASKEL, Esq., for some years sub-master of the Dwight School, has resigned because of ill health. He has been out of school nearly a year, seeking health in travel.

WALTER S. PARKER, Esq., usher in the Dwight, was promptly promoted to the sub-mastership thus vacated. Mr. P.'s success has been most signal.

Mr. H. P. MAKECHNIE, whose ill health has kept him from school duties in the Lincoln Grammar School, West Somerville, is so far recovered that he has returned to his labors. His school suffered none during his absence, under the most excellent management and teaching of HENRY F. HOWARD. The scholars made Mr. H. a handsome present in testimony of their appreciation of his services.

CHARLES F. KING, Esq., of the Lewis School, Boston, delivered a lecture on the evening of the 16th instant, under the auspices of the Somerset Grammar

School Library Association. It is pronounced one of the best lectures we have had during the season. Mr. K. is a very successful teacher, and from his admirable style as a speaker we predict equal success in the lecture field.

MATILDA FLETCHER is determined to establish an industrial exposition with every ward and district school in the country, before the Centennial, provided she can obtain, what she should have, the hearty approval and co-operation of teachers and school officers. Her plan is to set apart one day per week in which each pupil shall be required to bring to the school-room some useful article, made by his or her own hands, to be exhibited and explained, under the supervision of the teacher, in the presence of the parents and friends. These articles to consist of specimens of cooking and sewing of all kinds, or anything else common to household work; iron and wood work of all kinds, from a plain box or horse-shoe to a steam-engine or house in miniature, with all other useful things known to the children, or that may be invented by them. Also, farm and garden products, in their season, with explanations of process of culture, kind, value, etc.

General Eaton, United States Commissioner of Education, and many other eminent educators, cordially approve her ideas, and certainly she sustains them with many and pertinent reasons that cannot be gainsaid.

BOSTON. — The sudden enlargement of Boston has, perhaps, affected no department of its government more than the schools. Each of the three added districts had been laboring for years to perfect a distinct, independent course of study, and however anxious they may be to assimilate with the city plans, it will be no easy matter.

The text-books are to remain unchanged as yet; but the salaries are to be speedily placed on a systematic basis.

The question of corporal punishment is also a source of agitation, and is not yet fully settled; but the use of the rod will not be allowed to any extent in either of the High Schools it is safe to affirm. Most of the changes in text-books are laid over for the present. Underwood's "Hand-book of English Literature," Guyot's "Physical Geography," and Hooker's "Child's Book of Nature," are adopted as required books.

The admission of the ladies elected to the Board to a place in the deliberations of this committee, has been a question warmly contested, but the decision of the Supreme Court, that there are no constitutional objections, and the opinion of the City Solicitor, which will soon be given, will undoubtedly settle the matter for the present.

Appointments. — Andrew School, Elizabeth A. Winware, master's head assistant; Mary E. Perkins and Emma C. Perkins, assistants in the Grammar School; Jessie C. Tileston and Elizabeth Ordway, Primary School teachers; Eliot School, Ellen Forbush and Miss Reggio.

Charlestown District. — Ellen B. Wentworth, assistant in the Bunker Hill School; Miss L. A. Whitman, in the Harvard Primary; Mary F. Flanders Primary, No. 5.

CAMBRIDGE. — Miss Mary E. Towle, a graduate of the last class at the Westfield Normal School, has been appointed a teacher in the Webster School at a minimum salary of \$600.

Miss Clara E. Matchett, a graduate of the Cambridge Training School, has been appointed temporary teacher in the same school at a salary of \$500.

Miss Emily H. Phinney, of the last class at Bridgewater, has been appointed teacher in this school at a salary of \$500.

Miss Emma J. Hale, who taught successfully here the past year, has resigned, and entered the Boston School of Oratory, to pursue her studies in that department.

The reputation of the city as an educational centre will not be improved by the decided action of the Common Council abolishing the office of Superintendent of Schools. Why the foremost city in the State should thus deliberately take the back seat is a mystery.

Appointments. — Mary A. Willis, of Reading, has been appointed assistant in the Thorndike Grammar School; Mary E. Towle, assistant in the Webster School, and Sarah F. Gordon in the Shepard School. Helen M. Moley, in the Quincy Primary School; Agnes Cox, in the Otis Primary.

The vexed question of superintendency has caused much uneasiness, but the agitation in this city, which called forth a joint meeting of the Committee, Aldermen, and Common Council, brought out some of the most unanswerable arguments for the necessity of a superintendent that had been recorded as yet. The committee were ably represented in the discussion by men who knew whereof they affirmed. It is to be hoped that the Legislature will put the whole subject of Superintendents where it belongs, with the School Committee. It is necessary to the efficiency of the school system.

CHELSEA. — Miss H. L. Weaver has resigned as first assistant in the Carter School.

LYNN. — The committee have organized with choice of Theodore Attwell as president, and W. P. Sargent as secretary. The question of superintendency is being agitated anew, and with a probability of the passage of the ordinance.

NEWTON. — The declination of N. S. King, Esq., to serve longer on the School

Committee, after a most handsome nomination, called forth from George E. Allen, Esq., a most cordial expression of the feeling of the town at thus losing from the school councils one who had been most active and efficient during seventeen years of service.

Miss H. L. Macreading has resigned as teacher in the Upper Falls Grammar School.

Mr. J. A. Gould presented a resolution which, though doubtless intended as a compliment, has raised the ire of many an advocate of woman's rights. It seemed to imply that women are only *fair weather* officials.

Resolved, That we express our regret that the inclemency of the weather this evening has prevented the ladies belonging to this Board from being present at this last meeting of the School Committee under the town organization."

Appointments. — Miss V. A. Barker, teacher at the North Village; Nettie M. Freeman, as teacher of the Pearl Street Grammar; Alotta C. Wilmarth, Pearl Street Primary; Adelaide Reed, first assistant in Crafts Street Grammar; Sarah E. Pratt, at the Lower Falls; Harriet A. Townsend, in the Auburndale Grammar.

FITCHBURG. — Mr. E. A. Hubbard has been re-elected Superintendent of Schools and his salary increased to \$3,000.

Mr. H. S. Kilby, a recent assistant in Harvard College, is appointed successor of C. F. Adams, resigned, as sub-master of the High School, at a salary of \$1,200.

Miss Lizzie P. Howard, of the High Street Intermediate School, has resigned, and Clara L. Tenney succeeds her.

Mr. Clark has succeeded in having a convenient laboratory fitted up in the High School building for class work.

Books.

ESSAYS ON EDUCATIONAL REFORMERS.
By Robert Herbert Quick, M. A., Trinity College, Cambridge, etc. Cincinnati: Robert Clark & Co.

This book gives us an interesting account of the schools of the Jesuits, of whom it is said that "no body of men has played so prominent a part in education since the revival of learning." Then we have the leading points in the systems of Ascham, Montaigne, Ratich, Milton, Comenius, Locke, Rousseau, Basedow, Pestalozzi, Jacotot, and Herbert Spencer.

Their theories, both with regard to what to teach and how to teach, are very ably discussed; and the principles and methods in which they agreed, and those in which they disagreed, are noted.

For the part of a critic the author "claims at least one qualification, — practical acquaintance with the subject." We are inclined to give him credit for several qualifications, — catholicity of spirit, good judgment, keen insight, and an extensive practical acquaintance with the subject. Such books are very much needed among us. If we are to have a science of pedagogy, it must be based not entirely on theory, but we must learn important lessons from experience. We know of no book more suggestive and instructive on this subject.

CICERO DE SENECTUTE (Cato Major):
A Dialogue on Old Age. Boston: Ginn Brothers. 1873.

THE CONSPIRACY OF CATILINE, as related by Sallust. Boston: Ginn Brothers. 1874.

These works are prepared under the joint editorship of Messrs. J. H. and W. F. Allen and J. B. Greenough. Either of these gentlemen would be thoroughly competent to edit a classic author. From the combined efforts of the three we

ought to expect something uncommonly good. In this expectation we are not disappointed. Rarely has it been our lot to see a new edition of a classic author that so entirely satisfied our mind as to what such an edition should be. The publishers have done their part of the work in their usual faultless manner, and the editors have shown throughout their exact appreciation of the student's needs, and their own ability to supply them.

We have looked through the notes with some care. Here we find help given where it is most needed, and withheld where it is unnecessary. There is nothing that looks at all like "padding." Every word tells. The translations are almost all short, but very pithy and remarkably idiomatic, — as far removed as possible from the bold literalness of some editions and the free paraphrasing of others. Many admirable hints are given on the force of those particles which the lazy schoolboy translates, and the lazy schoolmaster allows to be translated, by "indeed," — *vero, quidem, certe*, and the like. Grammatical references (to Allen and Greenough's Grammar) are given occasionally, but not too often. Other notes, that explain allusions to Roman history, laws, and customs, are of the very best.

If we seem to give too extravagant praise, we can only advise our readers to examine the books for themselves, and we think they will agree that our praise is well bestowed.

THE CÆDIPUS TYRANNUS OF SOPHOCLES. Edited for the use of schools, with English Notes and an Introduction. By John Williams White, A. M., Professor of Greek in Baldwin University. Boston: Ginn Brothers. 1874.

A new edition of the *Cædipus Tyrannus* has long been needed in this

country to meet the wants of beginners in Greek tragedy. Professor White's edition is intended for that class of students, and appears to be well adapted to their needs. The volume contains a "Partial List of the Editions of the *Edipus Tyrannus*," twenty titles being given, and the names of two lexicons. Next follows an Introduction, which contains a carefully written analysis and criticism of the play, occupying about twenty-five pages. This introduction is very interesting, and well worth reading even to one who cannot go into the study of the text. The text and notes occupy about an equal number of pages. Of the latter it may be said, by one who is not very familiar with the tragedy, that they appear to be of the right kind. One feature is to be especially commended, and that is the frequent introduction of quotations from English classics, the language or sentiment of which is analogous to that in the passages in the play with which they are compared. We recommend the book with confidence to all who have occasion to study or teach the great tragedy.

TRAVELS IN CASHMERE, LITTLE THIBET, AND CENTRAL ASIA. Compiled and arranged by Bayard Taylor. New York: Scribner, Armstrong & Co. For sale by Thompson, Brown & Co., Boston.

Another volume of the Illustrated Library of Travel, Exploration, and Adventure.

It begins with a general description of Central Asia. Then we have an interesting account of the travels of Marco Polo, in the latter part of the thirteenth century, — he being "the only European traveller, from the most remote period down to the present age, who ever visited the high table-land of Thibet and the countries beyond."

Most of the book, however, is devoted to modern attempts at exploration, including the journeys of modern travellers in that unknown region which may yet become the theatre for the great and

final struggle between England and Russia for political supremacy in Asia. Bayard Taylor's name is a sufficient guarantee for the compilation and arrangement, and the publishers have spared no pains in its mechanical execution.

FIRST BOOK OF GEOLOGY. By William S. Davis. With 115 illustrations. And **ELEMENTS OF ANIMAL PHYSIOLOGY, CHIEFLY HUMAN.** By John Angell. Illustrated with 83 figures. New York: G. P. Putnam's Sons. For sale by Noyes, Holmes & Co.

These books, belonging to "Putnam's Elementary Series," prepared by men whose names are a sufficient guarantee of their excellence, are intended, to quote from the preface of one of them, "to introduce the really earnest student to the study" of the subjects.

In the work on geology, the student is recommended "to study it as a geologist"; "to see and handle, as far as possible, all that which is merely described here." So in the work on Animal Physiology, the teacher is to supplement the text-book "by good diagrams, a free use of the blackboard, and of the lungs, heart, kidney, eye, etc., of the sheep," with an occasional dissection of a small animal.

These books may thus be made useful in teaching science; and the hints derived from them, and the interest which will certainly be elicited, if the author's advice is followed, will react favorably on methods of teaching other branches.

THE POPULAR SCIENCE MONTHLY for March contains a portrait of Agassiz, and an interesting sketch of his life and scientific labors, by Richard Bliss, Jr., of the Cambridge Museum of Comparative Zoölogy.

Charles H. Hitchcock, Professor of Geology in Dartmouth College, has an article on "The World before the Introduction of Life." But it seems invidious to single out articles when all are so interesting and instructive.

LIPPINCOTT'S MAGAZINE is as handsome and as good as ever, which is saying enough.

OLD AND NEW has several chapters of "The Way we Live Now," and two chapters of "Tom Haliburton's Quandary," besides its usual amount of other valuable matter.

THE ATLANTIC MONTHLY has two chapters of "Prudence Palfrey," which will be looked for with impatience; another chapter of "Baddeck, and That Sort of Thing," by Warner; a continuation of "Mose Evans," and many other readable and interesting articles. The Atlantic seems to have lost nothing by its change of publishers, either in appearance or interest.

THE INTERNATIONAL REVIEW for March is especially interesting. Dr. McCosh's article on "Upper Schools," and that of Amasa Walker on "Our National Currency," are timely as well as valuable. The article on "Working Classes in Europe," by Hon. Thomas Hughes, every one will wish to see. A. Williams & Co. have it.

J. W. Daughaday & Co., Philadelphia, will issue this month a volume containing a new and choice collection of original dialogues, tableaux, etc., adapted to the wants of school exhibitions, literary

societies, lyceums, the holidays, lodges, church, Sunday-school, and sociable gatherings, temperance meetings, etc., and also as a book for home entertainment. Compiled by William M. Clark, editor "Schoolday Magazine."

BOOKS RECEIVED.

Received from the house of G. P. Putnam's Sons, of New York, of their "Advanced Science Series":—

PHYSICAL GEOGRAPHY. By John Young.

ANIMAL PHYSIOLOGY: The Structure and Functions of the Human Body. By John Cleland. With 158 engravings.

A MANUAL OF INORGANIC CHEMISTRY: The Non-Metals. By T. E. Thorpe. Also,

THE PORTABLE ATLAS. Consisting of 16 Maps. By John Bartholomew.

Noyes, Holmes & Co. have them for sale.

Received from D. Appleton & Co.:—

THE ELEMENTS OF PHYSIOLOGY AND HYGIENE: A Text-Book for Educational Institutions. By Thomas H. Huxley and William J. Youmans. Revised Edition, with many Illustrations. Also,

SECOND BOOK OF BOTANY: A Practical Guide to the Study and Observation of Plants. By Eliza A. Youmans.

For sale by Nichols & Hall, Boston.

THE MASSACHUSETTS TEACHER.

[H. F. HARRINGTON, Editor for April.]

VOL. XXVII.

APRIL, 1874.

No. 4.

THE RIGHT PROPORTION OF MALE TO FEMALE ✓ TEACHERS IN THE PUBLIC SCHOOLS.

THE "Woman Question," first manifesting its irrepressible vitality in the political arena, has at length invaded the domain of education. It there finds lively opportunity for the play of its resolute forces, since there is no organism in the whole range of human association, civil, social, religious, or otherwise, in which the relations of the sexes are more various or more important. Whether woman should receive the same education as man, in kind and in degree; whether the sexes should be educated together, in whole or in part; whether, having arrived at maturity, their activities, as educators, are governed by the same laws of correlation as their personal education and development while in youth, are all questions of singular interest and importance. They concern both the present health — mental, moral, and physical — of the subjects of the inquiry and the corresponding weal of the generations of the future; they affect the power and happiness not only of individuals, but of society; they touch some of the secret springs of national life and progress. And let them not cease to be agitated until, from the potent chemistry of candid and thorough argument, all confusing admixture of prejudice and misconception shall be cleared away, and convictions be crystallized so pure and true that they shall possess all minds and determine the action of the future.

We propose to add our drop to the current of discussion, so

far as relates to the special topic with which we have headed this essay. The debate on this topic at the meeting of the State Teachers' Association, in Worcester, did not satisfy us. It did not go down to the roots of the matter, except in one or two instances, when the argument was so lightly pressed as to make no impression on the minds of the hearers. For there are two distinct branches to this question,—one having reference to the comparative value of men and women as teachers, based on permanent conditions of fitness, the other relating to their services as affected by casual and remediable interferences. And only the latter, with one exception, were forcefully dwelt upon.

Mr. Stone, of Springfield, who opened the discussion, struck the key-note of the subject when he said that the services of both men and women are necessary in shaping the moral and intellectual character of pupils, just as the influence of both father and mother is needed in bringing up a family of children. In these words we had an insight to the solid philosophy of the matter. From that simple analogue light rays out over the whole field of this controversy. This analogue has been to us, ever since we began to inquire into the great subject of education, and to realize its vast and diversified proportions, the starting-point of our own investigations, the lens through which we have conducted our scrutinies, destined to be proved by observation and inquiry faultlessly sound and trustworthy in its suggestiveness. A home, by common consent, is the divinely ordained prototype of all pure and ennobling sexual relations, and of all human societies. Brothers and sisters are to be brought up together within its sacred precincts. Side by side they are to listen to the same counsels, be encouraged by the same inspirations, be moulded by the same circumstances, and are ceaselessly to exert over each other, according to the diverse characteristics of their sex, modifying influences of incalculable importance. Here, then, we have before us, written all over with the approving finger-marks of Omnipotence, the germ of the co-education of the sexes, that subject of so much excited and still unsettled discussion. And if any one is disposed to adopt our analogue as his *à priori* argument for co-education, and will verify its validity by investigations that shall be as candid as they are

thorough, he will be astonished at the uniform and emphatic testimony of all related facts in its support.

And now, what of the relations of the parents in the home before us, to each other and to their children? Mr. Stone says: "I believe that the services of both men and women are necessary in shaping the moral and intellectual character of pupils, just as the influence of both father and mother is needed in bringing up a family of children." He unhesitatingly assumes the necessity of the influence of *both* parents to complete the training of a home, as though it were a foregone conclusion. He is right. No one will venture to violate the sacred unities of the constitution of a home by gainsaying his position. One parent is not the mere substitute or alternate of the other in rearing their little flock, but each is the other's complement, supplying what the other lacks; and if either is faithless to duty, no matter how sedulous the dutiful one may be to compensate by extra attention for the shortcomings of the other, full compensation is absolutely impossible. The children will inevitably be defrauded of an element of training that is needful to the full and harmonious development of their minds and characters. *For, of those parents, one is man and the other is woman, with the distinctions of sex as marked in their mental and spiritual constitutions as in their visible forms; and their influence is not — cannot be — altogether the same.*

Now, let us transfer the conditions of this, our hallowed prototype, to the question before us, and what reply must we give to it? This: that the right proportion of male to female teachers is such a proportion that the masculine element shall have as effective scope in the work of teaching as the feminine, — the feminine as the masculine; the one, in all intellectual exercises as well as all training of character, to be brought to bear specifically and directly as well as the other, and that not as its supplement, but its complement. Else the work of education will be imperfectly accomplished. As surely as man is not woman and woman is not man, this postulate is true; and they who commit the training of youth entirely to teachers of one sex, be they men or women, are flying in the face of heaven, are limiting the range of educational influence to imperfect agencies, and inevitably,

therefore, are compassing only one-sided and partial results. This may not be conspicuously manifest. The distinctive results in question, from the nature of the case, must exhaust long years in their full development, while they have been so little the subject of inquiry that their positive features have not been traced and exposed. But all the while, there before us stands our postulate, with its significant warnings, courting the investigation which must establish its truth. Commit the training of a nation's youth exclusively to either sex, and the imperfect work will eventually modify injuriously the nation's life. We have no doubt that certain personal and social aspects of the German nation, not at all to be commended, are largely due to the fact that men alone, from time immemorial, have been the educators of its children; and they who, in several of our Western communities, are now organizing their school systems so that they shall be taught exclusively by women, are unconsciously committing an egregious error are organizing injury; and we would not assume the same responsibility for the wealth of worlds.

Just here we feel the prick of an opponent's lance, and must delay to defend ourself. Dr. Clarke, in his celebrated essay, "Sex in Education," writes:—

"No microscope has revealed any structure, fibre, or cell in the brain of man or woman that is not common to both. No analysis or dynamometer has discovered or measured any chemical action or nerve-force that stamps either of these systems as male or female. The inference is legitimate that intellectual power, the correlation and measure of cerebral structure and metamorphosis, is capable of equal development in both sexes."

We readily admit the probable correctness of the writer's premise, but the logic of facts is stronger than the logic of inference, and we emphatically dissent from his conclusions. We are forced to believe that there are functions of the human spirit which set at naught the scrutiny of the scalpel and the microscope, and prove the existence of modes of cerebral action which transcend the range of scientific materialism. "The age accepts the results of physical research, but refuses to regard them as the limit of rational belief. In resolving matter into molecules,

and molecules into atoms, the most illustrious cultivators of physical science cheerfully confess that they arrive at invisible forces which no crucible can analyze, no microscope detect, no arithmetic explain." We remember that a distinguished Boston surgeon, several years ago, made a statement respecting "left-handedness" and "right-handedness" in terms so similar to those employed by Dr. Clarke to prove the perfect mental correspondence of the sexes, that, with slight changes, the latter will serve very aptly to exhibit the former. "No microscope has revealed any structure, fibre, or cell in the motive forces of the right side of a man that is not common to both his sides. No analysis or dynamometer has discovered or measured any chemical action or nerve-force, prior to the differences induced by artificial development, that stamps either of his hands as possessing more power or greater dexterity than the other. The inference is legitimate, that there is, by nature, no such thing as 'right-handedness' or 'left-handedness.'"

And how did he account for the fact that an immense majority of the race are right-handed, — so immense that the very word *dexterity*, which we have just employed, is derived from the Latin for *right hand*? By the assumption that mothers and nurses almost invariably are careful to put playthings, etc., into their infants' right hands, and thus culture them into superior dexterity. Now, when we take into consideration the fact that all the world over, among the savage as well as the civilized, among the degraded, the thoughtless, and the reckless, as well as the cultured and the considerate, right-handedness prevails in equal measure, this assumption appears to be preposterous; and when we consider, in addition, that those who are right-handed are right-footed also, while the left-handed are correspondingly left-footed, superiority in power and dexterity never seeming to work diagonally across the human system, — and then reflect that all the mothers and the nurses must be assumed to have been as systematically solicitous for the prerogatives of the right foot as for those of the right hand, the assumption is rendered absolutely ridiculous.

Is it not a fact, moreover, that a large percentage of the left-handed are of the number of those who were very carefully

tended in infancy, for the purpose of rendering them right-handed?

Again, if left-handedness is merely the result of favoring the left hand at the expense of the right, by parity of reasoning, a shift of the favoritism, if made in season, will correspondingly change the result. Whereas, it is well known that in numberless instances the left hands of children have been bandaged, and rendered useless for long periods, so as to throw all effort upon the right, and thus to produce right-handedness, yet seldom with more effect than to endow the right hand with a good degree of skilfulness, without transferring to it the peculiar dexterity of the left. In our own family is a case in point. One of our children, in spite of parental solicitude to have her hands aware of their proper relations to each other, persisted in being left-handed; and while years of determined effort have enabled her to use her right hand to good advantage in answer to ordinary demands, whenever she is about to engage in any manipulation which requires special nicety, she instinctively has recourse to her left hand. So it is with almost every left-handed person.

The world, cognizant of these great tides of contradictory fact which quite sweep away such a theory of right-handedness as that of our Boston surgeon, persists in the belief that the superior dexterity of the right hand is the ordination of provident nature, let cells and corpuscles and fibres and nerve-forces be what they may.

We have enlarged on the foregoing illustration, because its relations to the human *physique* are precisely similar to those of Dr. Clarke's dictum respecting the comparative intellectual power of the sexes; and we purposed that the ready weight of testimony which crushes out the inference of the Boston surgeon so summarily should suggest the possibility of the existence of testimony ample enough to disprove the inference in the latter case.

To that testimony we now turn; and we ask in advance, are striking differences of manifestation in the sexes, in every department of mental faculty and energy, intellectual and emotional, instinctive and voluntary, known for ages, exhibited anew every hour of every day, shaping the convictions of an immense major-

ity of the race, and silently doing more to determine the relations of the sexes as to occupation and concern in affairs than all the theories and arguments of busy agitators can bring about, — differences which inevitably imply the existence of functional if not of structural disparity, — are they to be brushed aside into nonentity by a glance through a microscope and a subsequent stroke of a pen?

There is, first, the exuberant outcrop of instincts in early childhood, which sends the girl to her doll and her baby-house, and the boy to his hobby-horse and wheelbarrow, — the busy imagination of each luxuriating in the ideal circumstances appropriate to their distinctive apings of life's realities.

There are the significant differences in the amusements of maturer youth, when the boy delights in "I spy," "Whoop and Call," "How many miles to Barbary?" and in the ball, the boat, and the wrestle, — plays which give scope to tasking physical competition or rude and bounding energy; while the girl finds satisfaction in gentle recreations of quite another sort, and her nerve-force demands for its superfluity nothing that admits the wild *abandon* of the plays of the boy. And these limits are not enforced by abnormal physical disabilities, for which a false civilization is accountable, *but the instinct craves and determines the character of the recreation.*

There are the modes in which, at a still later period, these same instincts assert themselves among the substantive affairs of life, leading the incipient man to plunge with lively energy into the great current of the world's activities, not merely because he *must*, for need of occupation and livelihood, but also because spurred on by his mental proclivities. So we find him, thenceforth, gathering up gradually, as the fruits of his observation, stores of practical knowledge, — details of earth's busy industries, in the shop, by the loom, at the forge, by the steam-engine, in the mart, — which link his thought into sympathy with the forces that are daily stirring the world, and furnish him with material for reflection, invention, and suggestion. The maiden, on the contrary, relucts from such arenas of bustling, noisy industry. They do not enlist her sympathy, fascinate her observation, and stimulate her emulous energies. So her intelligence

remains practically unfurnished as to their vast range of details, and she stands, as it were, apart, while the great currents of activity sweep ceaselessly by.

There is the striking and interesting discrepancy between the sexes as to the workings of the affectional nature, manifesting itself at every stage of growth and under every variety of circumstances, whereby the girl is disciplined by appeals to very different motives from those which have influence with the boy, whereby the ambition of the one is excited most by desire for the good opinion of others, that of the other by impulses which terminate in self: the ready weapons of the one are love, sympathy, gentle persuasion; of the other, dictatorial authority and physical force. The religious nature of the one is far more vital and trustful, and the moral sense more faithful and self-sacrificing, than that of the other, constituting woman the conservative element in society, amidst the temptations, the degradations, the moral surrenders, and humiliating shames which multiply around us; so that many good men are longing for the time when, through the enjoyment of the right of suffrage, she shall become a positive and acknowledged power in affairs, and assert the purer instincts of her being to expose the sophistries, clarify the purposes, and ennoble the ambitions of man.

Finally, there is the singular fact, strongly differentiating the mind of man from that of woman, that the former reaches his conclusions through processes of reasoning, the latter discovers them through intuitive vision. This is no idle fancy, no bugbear of a prejudiced tradition. It has been a standing discrimination for ages. It has furnished a text for the speculations of eminent mental philosophers. It is to be noticed by any careful observer, day after day, and while it is thus capable of statement in a very few words, its significance on any question regarding the comparative power and influence of the sexes is immense.

And is a look through a microscope—a touch of a dynamometer—to dissipate all these and other equally significant differences into nonentity? It cannot be. There they firmly stand in their solid reality, teeming with suggestion.

The simple statement of them is enough to place it beyond question that there must be decided and momentous differences between man and woman, in regard to their work and influence

as teachers. Such a deduction is inevitable. And when we draw comparisons in the school-room between the two, the premonition is amply sustained by the facts. In methods, in illustrations, in the general character of the work, in influence, in effects, a man's teaching is a very different thing from that of a woman. Whoever asserts the contrary, we dare to say, sadly lacks the power of discriminating observation, or else is utterly blinded by prejudice. We will not say with Aristotle, that just as "the female of animals, as a rule, is inferior to the male, so woman is inferior to man both in strength of body and in intellectual capacity"; nor will we say with George Eliot, that "the masculine intellect, what there is of it, is always of a superior calibre." We have no such invidious comparison in mind. But we do say, and that with emphasis, that the *masculinity* of a man is a power in the school-room, in connection with the intellectual exercises, such as the *femininity* of a woman seldom counterparts. There is a robustness, an incisive vigor, and a breadth of treatment in a man's teaching which is peculiarly his own, and is correspondingly effective.

We have no room for details. One instance only of man's occasional superiority must suffice. Just as we are convinced that certain personal and social defects in German life are mainly consequent on the exclusive employment of men as teachers, so we believe that the utter divorce of school-work from the world's practical activities, which is one of the most prominent defects of American schools, is mainly owing to the fact that the great majority of our teachers are women, who have little sympathy with common things in the walks of art and trade, have no experimental knowledge of them, have not mastered their details, even theoretically, through interested and discriminating observation, and therefore are disqualified to levy contributions upon them, in illustration of the work of the school-room, and to bring the two into intimate relations. It is otherwise with men.

We hasten to say that, with appropriate changes of application, the comparison we have just drawn in man's favor must be reversed, and the superiority claimed for woman.

Our conclusion is, that as soon as our youth have passed beyond the primary stage of instruction, their minds should come

systematically in contact with teachers of both sexes, to such an extent that the teaching, character, and influences of one sex shall fairly supplement and qualify those of the other. We need not add that the organization of many of our large city schools, which have only one or two men to whole platoons of women as their teachers, the recognized necessity of any man at all being solely the need of more brute force than woman possesses, to coerce refractory scapegraces,—the masculine intellect receiving no specific valuation and relied on for no corresponding results,—is injuriously wrong in principle and derogatory to the honor of manhood.

We close with the expression of our regret that we should have given so imperfect a statement to our thoughts on a subject so interesting and important. It is too many-sided to have its intermingling lights and shades adequately delineated in so brief a space.

H. F. H.

▼ *A DEFECT IN GRADED SCHOOLS.*

[In response to our application for something from his experienced and instructive pen, Hon. E. E. White, of Ohio, sent these suggestive remarks on one of the most prominent evils of graded schools. They have already appeared in substantially the same form in the pages of Mr. White's magazine. But we fully agree with the writer that the importance of securing attention to the subject demands a frequent recurrence to its facts.]

A CAUSE of increasing complaint against our system of graded schools is its want of adaptation to the necessities of those who cannot give their whole time to school duties. "The schools," says the "Christian Union," "allow no divided allegiance. If the boy goes to school, he must go steadily, and give it the heart of the working day." No provision is made for children who must devote a part of each day to labor. Hence, young children are taken out of school to assist in household duties, to sell papers or do errands, or to render other assistance, really demanding but a portion of their time. Many pupils are withdrawn from school at a very early age to learn trades. They are too young to work more than the half of each day, and would make even more rapid progress in manual labor if they could

spend the other half in school ; but the doors of the public schools are closed against them : they must choose between the shop and the school, and the necessity of earning a living as early as possible scarcely permits in many instances a choice.

The failure of the public schools to accommodate this class of pupils, the very class which, above all others, needs their advantages, has been too generally accepted as unavoidable. Whenever the necessities of the family have demanded any portion of the regular school hours, children have quietly dropped out of their classes, and the schools have gone on apparently unconscious of their absence. But the proposition to enact laws compelling parents to send their children to school has raised the inquiry whether the schools are not responsible for some of the absenteeism to be thus corrected. It is urged that the first step is to adapt the schools to the necessities of all classes.

As a means to this end the "Christian Union" suggests that the public schools should be organized on what is known as the half-time system, — a system tried with encouraging results in Europe, and also in the primary schools of several cities in this country. It is urged that the adoption of this system would not only place school advantages within the reach of many children now deprived of them by the absolute necessity of devoting at least a part of each day to labor, but it would double the number of pupils instructed with no addition to the cost. The "Christian Union" also maintains that the uniting of labor and schooling is the true idea ; that children who devote their whole time for eight to ten years to schooling are not then likely to enter on manual labor with much enjoyment ; and, besides, that labor and schooling, when united, assist each other. The half-time pupils prove, as a rule, as apt scholars as their full-time classmates, and at the same time more skilled workers than their unschooled work-fellows.

These considerations have certainly great weight, but we are not convinced that the adoption of the half-time system in the upper grades of our schools is necessary to secure the desired end. A great many of the pupils in city schools would not engage in manual labor the half of each day were the half-time system adopted. If in school only half of the day, they would

spend the other half in idleness, on the streets, and some in worse places. When no home study is required, the present system allows some eight hours a day and every Saturday for labor and recreation. This is found to be time enough for many children to do all the work that is provided for them. It is possible that it would be better if all our youth had regular work the half of each day, but the public schools cannot change the usages of society in this respect. They must conform to *what is* rather than to *what should be*.

It has also been suggested that half-time schools might be organized for working children, and that the present system be continued for others. This involves not only a classification but a *separation* of children on the basis of manual labor, and we have already quite enough of this class principle in the organization of our schools. With separate schools for colored youth, for German youth, for Catholic youth (so persistently asked for), and for working youth, the unity of the school system would be pretty effectually destroyed. We believe that the difficulty under consideration can be successfully met without organizing separate schools for working children. What is needed is to make the course of study and the requirements of our schools flexible enough to accommodate this class of pupils. Instead of half-time schools, we would suggest a *half-time course of study*, in all grades above the primary; and this could be added with little difficulty. It is not necessary to require all the pupils in our public schools to take the same number of studies and advance with even step through the course. This procrustean device must be given up, if the public school system is to do its full, legitimate work as an agency for the education of the whole people. Instead of excluding pupils who cannot meet all the conditions of a complete and thorough course of elementary education, it must provide for such pupils the best education possible under the circumstances. This may involve some loss in uniformity and system, but there will be a gain in usefulness, — a result more important than mechanical perfection in classification.

This half-time course should include the more important and essential branches of study, and it should be taken only by those who can attend school but half of the time, or who are physi-

or otherwise unable to take the regular full-time course. abuses of the system should, of course, be carefully guarded against. There would probably be few applications at first for a part-time course, but it is believed that many working children who cannot now attend school, would avail themselves of the advantages when it is once known to be a practicable and a feature of the school system. The plan is earnestly commended to the consideration of the directors of the public schools in cities and towns, with the belief that it is at least worthy of a



OBJECTIVE TEACHING.

IN his address to the School Committee and Teachers of Boston, on his return from Vienna, Mr. Philbrick said that a school in that city, corresponding in the main with an American High School, has apparatus and other provisions to illustrate the regular studies of the school which cost the sum of *twenty-five thousand dollars*; and furthermore, that there is not a single article which does not perform some positive practical service. There is nothing merely for show.

The Commissioner brought home nothing more pregnant with wholesome suggestion, if only the American public is wise enough to discover and apply it.

For either this Vienna school has wasted a vast amount of money in a ridiculous way, and is encumbered with a museum of superfluous trash, or else its collection of illustrative aids to its studies puts the indifference of American thought and the nakedness of American schools, as to the value and supply of such aids, to humiliating shame. Here in America we plainly do not believe in objective or illustrative teaching to any extent, so far as schools are concerned. We prefer to believe in *words*. The statements of the text-books are the evangels of our systems of education. These statements — how Agassiz abhorred this vicious dependence! — are the miraculous artists, whose rich and faithful sketches are to paint on the susceptible and appreciative imaginations of our youth lively and accurate pictures of the objects which are referred to in the progress of study, and are

the subjects of investigation. The facts in the case prove this. Gather together into one collection all the apparatus and objects of every sort intended to illustrate their studies to be found in all the public schools of Massachusetts, high and low, and allowing an equivalent money value to everything that is positively useful, what would be the worth of the whole? Would it more than quadruple the worth of the museum of that one school in Vienna? We doubt it. For a large portion of our public schools have literally nothing of the sort, as many more, including some of great pretension as excellent schools, can boast the possession of only a few maps and a globe or two, and less than half a hundred monopolize at least nine tenths of all such existing provisions.

And even this half a hundred really offer few exceptions to our sweeping statement. For so limited are the purposes which their apparatus and cabinets are intended to serve, that the absence of any general principle as to the value of objective teaching is rendered all the more notable. Take from what are considered to be well-furnished schools their apparatus to illustrate natural philosophy and their cabinets of minerals, and scarce anything worth naming will remain.

Yes, in this country, we believe implicitly in talk and textbooks. Our school authorities believe in them; too many of our teachers believe in them. Word-pictures of the objects referred to in their studies are all-sufficient to stock the intelligence of our youth with the forms, specialties, and relations of things. The result is that the perceptive faculties have no training which rouses them into activity and sharpens them into accurate discrimination; the brains of our youth are filled with indefinite or distorted images; and numbers of words, which should be known and valued as the symbols of precise realities, are as loose in their meaning as are the conceptions of what they are intended to represent, so that they are not adopted by the mind into its vocabulary. This is miserable work for schools.

Is not all this strictly true? How can it be otherwise? What is the value, comparatively speaking, of the description of things in words? Take even one of the maturest classes in one of our High Schools: let the most consummate master of word-painting describe before that class an object, the like of

which they have never seen, presupposing it to be somewhat complicated in structure; then let the several members of the class undertake to draw (we will give them all credit for knowing how to draw) a representation of the object from that description, and what would come of it? Would the sketches of any two agree? Would not some of them be ludicrously incorrect? Would not some hesitate to attempt any sketch at all, because they had received no definite impressions?

And if this would be the case with High School scholars, how immeasurably exaggerated the difficulty becomes when the immature minds of younger scholars are the subjects of the experiment, and when the artist is not an accomplished expert but only an ordinary teacher.

You cannot rely upon words to give correct images of unknown things. It is not one of their functions; and no multiplication of them, or strain of their meaning, will endow them with it. And what are we to think of the quality of the instruction going on in the most of our schools, when their sole dependence to convey accurate conceptions of the objects referred to in the progress of the studies is upon words?

But put before a class the object itself. Let no words whatever be spent on description, but let the scholar's eye furnish his intelligence with all details, while the teacher makes the applications for which the object was referred to. And if the attention has been properly arrested, the impressions on the mind will be correct and lasting. There can thenceforth be no misconception, no vagueness, no mistake. The scholar has seen *the very thing!*

Such are the elements of real, productive knowledge in relation to the material world. Everything beside is only a pretension and sham.

It seems a wonder that these truths, which are as appreciable as they are fundamental, do not make teachers more restless than they are under the privations to which they are subjected in this regard. One might anticipate that from all the naked school-houses of the State would rise to heaven one ceaseless wail of intolerable annoyance, and the clamors of a protest so earnest that self-satisfied, easy-going public opinion should re-

ceive a healthful shock, and apply itself to the removal of the great reproach. But we have found an idea to be quite prevalent among teachers that a certain discipline of mind is associated with its struggles to form satisfactory images from verbal descriptions, and that merely to exhibit to scholars the objects themselves is to deal with them in a superficial way and produce only evanescent impressions.

In the minds of teachers who think thus, there is evidently a supposed analogy between the efforts of the mental powers to comprehend and evolve principles, and of the imagination to construct images under such conditions. But how utterly diverse the two! The one is the normal exercise of power to make deductions from determinate data: the other is an impotent effort to work successfully on shadowy or imperfect materials; the one is healthful and profitable: the other is harassing, ineffectual, and worse than useless. Discipline! Mere task-work of itself is not necessarily discipline. It is as likely to be the pathway to mental anarchy.

Objective teaching superficial, and its impressions evanescent! Would that school authorities, by furnishing the school-houses with illustrative apparatus, would give the teachers opportunity to try it for a generation! There would never have been such effective teaching in the land.

They understand these things better in Vienna, it seems. Twenty-five thousand dollars in furnishing a High School-house for objective teaching! On what could they have spent it all? We have taken the pains to inquire, and have learned enough of a part to justify supposition as to the rest.

Imprimis, there is a fine apparatus for experiments in Natural Philosophy. Then there is a cabinet of minerals and fossils to illustrate Geology. There is a splendid museum of preserved specimens in Natural History,—animals, fishes, insects, shells, etc. Physiology has its complete and admirable cabinets, Architecture its various models, and Commerce its orderly array of the products of every clime, so far as practicable, as they appear in growth and in the processes of manufacture. The fauna and flora of the world contribute a complete outfit for the study of Botany, and the arts the pieces of mechanism through which they accomplish their wonderful fabrications. Outside of these

and other provisions which pertain to specific subjects, there is a large miscellaneous collection of the various objects which are likely to be referred to in the progress of study, and which the youth ought to be practically conversant with.

What a marked and effective character the teaching must have in a school so furnished! What a stirring up there must be of the perceptions in connection with every study, what vivid and accurate impressions, what open doorways into the loving embraces of Nature herself, what stores of data for the profitable activities of thought!

Let us hope that public opinion, in this as in other important regards in reference to the great interests of education, is destined to a speedy renovation, so that it shall come to be felt that for want of such assistance, in American schools at large, there is inevitably a radical defect in the education they furnish. Mention has already been made of Agassiz, and his hatred of American trust in verbal descriptions instead of having recourse to the objects themselves. He was intensely interested to introduce a very different kind of instruction. Model learner as well as teacher, his books had been furnished him in good part by Nature herself, and he admirably illustrated in his own person the surpassing value of such a resource. When his eager pupils on Penikese gathered about him for their first lesson, he only said, — Our first study will be the formation of this island. Go out over it, and see what you can find that will tell you something.

They went out. They critically examined rock-masses, boulders, gravel, abrasions, grooves, heights, depressions, shores, and thus obtained the alphabet of the knowledge which expanded to whole pages, bright with imperishable illumination, before the season was over.

Two suggestions, and we will close these cursory remarks on a subject that is of more than passing importance.

First, let no teacher be afraid of too much objective teaching, provided always that the objects exhibited to a class — if above the primary grade — are introduced in the right connection to illustrate *subjects*, and not to concentrate the attention exclusively upon themselves. The latter is *object teaching*, and only to be practised with minds in the early stages of development.

The more a subject is illustrated by its appropriate objects, the clearer and fuller become the conceptions of it, the more lasting its impressions, the richer and more varied its productive suggestions, and there is no abridgment thereby of mental activity and discipline ; but on the contrary, the faculties become all the more intensely and profitably engaged. The matter, when rightly done, cannot be overdone.

The second suggestion we would make is, that it is often as necessary to place before the eyes of scholars the objects which immediately surround them, and which they might reasonably be supposed to be intimately familiar with, as those which are ordinarily beyond their observation. The perceptive faculties must be specially trained to do their allotted work, or they are likely to neglect it altogether. It is astonishing to mark how the mass of mankind passes through the world as if almost literally blind and deaf, beholding a thousand things, day by day, yet getting no discriminating impressions of their parts and properties. ' Seeing, they see not ; hearing, they hear not ; and they do not understand."

The writer was immoderately laughed at by some members of the school committee of a sea-port town, not long since, when conversing on this topic, because he happened to remark that it would be well for each school to have models of the various kinds of vessels in their illustrative cabinets, so frequent are the references in literature to the parts and purposes of sea-going crafts. " Models of vessels in the school-houses of this city," exclaimed one of them, derisively, " when almost every child sees vessels as frequently as he sees houses !"

" Let us test the need," was the writer's reply. So we went into a grammar school and put questions to its first class ; and out of forty-six present, only three knew what the *hatchway* of a vessel is, only five knew the position and uses of the *keel*, and only a few of the boys could tell the distinction between *cabin* and *hold*. The committee-men incontinently subsided.

At the examination of a country school, a few weeks ago, the piece given out to be read by a class of quite mature youth — boys and girls — was Mrs Stowe's sweet little pastoral, " The Daisy's First Winter." In it she tells of the flowers that grow

in the pastures and by the brooks, — the arrow-heads, the pick-erel-weed, the silver-weed, the azalias, the blood-root, and others of the beautiful sisterhood ; and of those youth, who had all their lives had daily intercourse with these flowers, beholding their wondrous beauty on every side, trampling them under foot in every walk, there was not one who knew their names, or seemed to have ever given them a thought.

And this proved, on further inquiry, to be a fair example of their utter ignorance in all details of that wonder-fraught and teeming Nature whose glories were as common to them as the day ; yet their teacher was proud enough that they had gone through cube root, and could answers the questions at the bottom of the pages of the geography. And this is what multitudes in America call getting a good, thorough education !

✓ SEGMENTATION.

[Continued from March Number.]

2. THE tendency of public opinion towards isolation of the parts of a system of education in this country is well marked in the history of the education of women. Up to the beginning of the present century the training of girls was essentially distinct from that of boys. It is so now in Germany. Here and there the two lines of training blended and became identical, but in general girls were trained for womanhood and boys for manhood, under the general belief that woman is, at the best, a house-keeper. The time spent in school by boys greatly exceeded that of the girls. When the idea of a home-keeper got hold of society, and Christianity began to assert its claims to practical regard, and to change from a system of doctrines and beliefs into a system of sweet and holy living, it was quite natural that the narrow space allotted to the intellectual in woman's education should be widened. Girls and boys received identical teaching, at first in the primary grades, then, little by little, through the secondary. The onward movement seems to have stopped at the secondary schools ; the Girls' High School is its culmination. The force, the *vis viva* of this reform has spent itself in the secondary education, inchoate as it is.

Within a very recent period, woman has asserted her right to an equal chance with man in the *higher* education. The right is now generally conceded ; but in the decisions of opinion on the question of joint or separate courses in this education is found evidence of the necessity of further isolation. All careful observers have conceded the necessity of opening the higher walks of knowledge to women, but few have been able to accede to the proposition that co-education is indispensable to the accomplishment of this desirable end. The difficulties arising from unlikeness in bodily and mental constitution have never been met ; they have, indeed, never been stated till the opportune publication of "Sex in Education" gave vent to the doubts and utterance to the fears and the difficulties of thousands of men. The positions taken by the author of that book have been fiercely assailed by those whose theories he crushes ; many positions not taken by the author have been successfully turned by his critics ; but it is pretty safe to say that the influence of the book has not been materially weakened, and that it is wholly in favor of isolating the higher education of women from that of men. It is all the more potent for the reason that the professional standing of Dr. Clarke enables him to utter with propriety certain truths which hundreds of men have recognized as absolutely vital in importance, but have been held back from uttering by a sense of delicacy. More than two years ago the "Nation" pointed out the fact that all questions involving the education and employment of women must be discussed from the standpoint of sex, or they would be discussed in vain. They have been so discussed at last, or rather such a discussion of them is now begun, and promises great good. There is ground for hope that the higher education of women will now proceed conformably to nature, and by methods and processes that will enable a woman to reach the utmost attainable knowledge without violating any of the laws of her being.

What has been actually done for woman in this regard has been done in this way, though often with large admixture of false methods. All the large special bequests made during the present quarter century have been for the separate, not the co-education, of woman. Now, the financial pulse is the point to test with accuracy all beliefs that find expression in practical benevolence.

A man or a woman of large means, who contemplates devoting his property to special plans for the good of any class, is apt to examine carefully all the plans proposed, and choose the one which, in his judgment, is based on soundest principles and is likeliest to succeed. Proceeding on this principle, Mr. Vassar founded Vassar College, Mr. Robinson the Academy at Exeter, Mr. Simmons the Simmons College at Boston, and Mr. Sage the Sage College at Cornell University, — each an institution for the separate education of women. The Sage College is as distinct as any of the others, and the question whether it gains or loses by its formal connection with Cornell of course remains to be settled by the statistics of four or five graduating classes. Miss Smith founded a Woman's College at Northampton, none too far from Amherst to be sure, but still entirely independent. Mr. Durant is about opening the fine buildings at Wellesley for an isolated Girls' School. Nearly all these schools are opening under such circumstances that the important principles announced in "Sex in Education" can be incorporated in their plans of discipline.*

So, then, tried by the test of finance, co-education is a failure. Every argument ever urged in its behalf had its due and proper weight in the minds of Miss Smith, of Mr. Vassar, and of Mr. Durant, but their unanimous decision, in the practical investment of their money, is against it. The "drift of things" is away from co-education, not towards it. This appears to be the opinion at least of those who have really *done most* for woman.

Against this position it is objected that the doors of colleges are closed to women, and that bequests to these institutions on woman's behalf would be vain. But why are the colleges closed? Because the trustees, faculties, and alumni are so certain that

* Since this article was written I have read the report of the Boston University and the statement of Pres. White in regard to the superior behavior of girls at the examinations. Both these statements lack the vital element of proof that the course of study is *really* — not in form alone — identical with that at the best New England colleges; for it would be easy to arrange a course in the Higher Education wherein girls could hold their own and more. In order to add much to our knowledge of this subject, these two colleges will have to show the identity of their course of study with that at Harvard and Yale in all essentials; and the Boston University will be obliged to show by the statistics of several graduating classes that the number of girls bears the same ratio to that of the boys as in the State at large.

there would be no gain to girls from the fellowship with boys, which would offset the loss to the boys, and that there are other insuperable difficulties. The great increase of expenses inevitable to such a change would deter wise men from making it without satisfactory guarantees, even if satisfied on other grounds of its feasibility. Now, since, on the other hand, the advocates of co-education claim that *girls* would derive signal advantages from association with boys in college, it only remains for them to endow an institution on that foundation somewhere in the Eastern States, where students are plenty, and demonstrate its soundness. The frivolous objections that separate colleges for women must be straightened in material resources, and that they must lack the *tone* of the college, are seen to be without any claim to regard, when it is remembered that the Simmons trustees probably have more money at their disposal for actual instruction than the corporation of Harvard College, and the trustees of Smith College more than Amherst, Williams, or Dartmouth. With this *start*, success must of necessity make their resources simply affluent. The *tone* of the college is not] due to the college as such, but to the men it succeeds in drawing to itself and keeping till the fruit of their scholarship ripens and perfumes the air. Woman's colleges have the same chance that men's colleges have had to do this.

It is urged also that if you construct a system flexible enough to provide for the best and for the poorest boys, it will be flexible enough for girls. That is, girls are to be placed somewhere between the best boys and the poorest, — a bland concession truly! Or rather the machinist who has found a plan for successfully working all grades of iron in the same shop is just the man to do art-work in the precious metals.

3. This tendency to isolation is seen in the history of technical education in this country. At first the scientific schools were connected with the colleges; but this co-education has been no more prosperous than the other: it is an attempt to bring in-compatibles together. Hence the later developments of technical education are separate endowments of the Institutes of Technology at Boston and Hoboken and the Free Institute at Worcester. The strength of the tendency to isolation in these

schools may be seen in many places. It has been found impossible to blend the three elements in the scientific work at Dartmouth, namely, the Chandler School, the Agricultural College, and the Thayer School. At New Haven the Sheffield School has gained a wellnigh separate existence. The Institute of Technology has resisted all overtures looking towards absorption in Harvard University.

Within the sphere of technical education, the same tendency is observed. The schools are concentrating their training more and more, putting some one department in the forefront and making all others subservient to it. A well-educated mechanic, for instance, like a well-educated man, is believed to know everything about something, and something about everything. Thus the technical school, carrying out this principle, meets and checks and cures the disintegration of the trades. A mechanic thoroughly bred in heart, mind, and hand, is in no danger of adding himself to the list of those who know and can do but one thing. He is master and not brother of the machine.

Again, as it concerns the college, it is a fair question whether it has not lost ground, on the whole, by attempts to conciliate the sciences. It is one thing to quiet clamorous tongues, but another to meet two incompatible demands. The real friends of science are neither flattered nor satisfied at the sight of the child clothed in antiquated garb. The classical men resent the incursions of science as intrusive. So far as science is disciplinary it is admissible as an adjunct in the college training; beyond that, it cannot be allowed to go. The study of Applied Science belongs to a different curriculum.

4. The tendency to a more and more careful distribution of the subjects of study in the lower schools is a well-marked illustration of the process we are considering. The arbitrary and unnatural assignments of studies, so common twenty years ago and not quite extinct now, is giving way to one based on a recognition of the necessity of adapting methods of teaching to the minds of those who are under instruction. The plan for "giving everybody everything," although founded on feelings in their nature kind, will not answer the demand of the times. The successful man nowadays must have accurate knowledge and a

clear head. Hence the schools must not allow any branches of knowledge, however important in themselves, to crowd and jostle those which by nature and common consent properly belong to any given period. For example, the Physical Sciences should by no means enter the Grammar School, save in so far as the phenomena which form their data may be properly made subjects of object lessons, while so much remains undone in Mathematics and in Language. The study of the Physical Sciences, as distinct from the Natural History Sciences, should be begun in the High School, and finished in the college or the technical school. This plan will seem feasible and right when the High School is put in its true relation to the Grammar School on the one hand and the higher school on the other.

Many other illustrations might be drawn from different fields of education, but those now adduced will suffice for my present purpose. The point to be made is that the drift of public sentiment is towards a more complete separation of the parts of education, an isolation of the parts without severing their vital connection with the organic whole. If such a process is going on, it should be studied in the solution of every educational problem, for it is full of bright promises of good.

A LATE "New York Tribune" finds a striking illustration of the fact that the proprieties of language in speech and composition are learned from reading and the imitation of good usage, and not from the study of grammar as it is usually taught in schools, in the example of the late Millard Fillmore, whose early education was greatly neglected, and who, until the age of nineteen, had never seen a grammar nor a geography, yet who used language with much propriety. It remarks that "The accuracy with which so many of our half-educated or self-educated men write and speak English is surprising"; and adds, "Our American accuracy does not come of early drilling; it is to be attributed to the general habit of reading. It is in this way that the majority become tolerable grammarians by rote, and speak correctly; simply because they speak at all. These are facts which may well lead us to revise our notions of the necessity of studying grammar as it is usually taught in our schools."

VERMONT DEPARTMENT.

REV. H. T. FULLER AND J. C. W. COXE, EDITORS.

VERMONT STATE TEACHERS' ASSOCIATION.

TWENTY-FOURTH ANNUAL MEETING AT ST. ALBANS.

THE twenty-fourth annual session of the Vermont State Teachers' Association commenced at Academy Hall, St. Albans, on the twenty-second day of January, 1874. The President, Judah Dana, of Rutland, in the Chair.

After devotional exercises, conducted by the Rev. Homer White, of Enosburg, the Association completed its organization by the appointment of the following committees: On Business,—J. S. Cilley, Brandon, Chairman. On Nominations,—A. E. Leavenworth, New Haven, Chairman. On Resolutions,—J. S. Spaulding, Barre, Chairman.

Discussion on the topic, "Modern School-Work as related to the Development of Thought in the Pupil," was opened by C. S. Halsey, Principal of High School, Burlington. Mr H. thought that modern school-work was well adapted to develop thought in pupils; and in drawing a comparison between the advantages of the present and the past, he cited the astonishing progress made recently in the Physical Sciences, and observed that the multitude of newly discovered facts serves as a stimulus to awaken the curiosity of pupils and lead them onward. Pupils look deeper than they did once, and work more by sight and less by faith. Another advantage in modern times is that there is an increased supply of professionally educated teachers.

Mr. Halsey was followed by Mr. A. E. Leavenworth, of New Haven, who declined a discussion, agreeing in the main with the views presented by the former speaker. He thought, however, that the school-room was a good place for the training of the teacher.

The scholars in our common schools are not taught to think. A gentleman had said that he thought he received as a boy more mental discipline in contriving how to escape learning his les-

sons than he ever did from the lessons themselves, or any instruction founded on them.

Mr. Edward Conant, of Randolph Normal School, then addressed the Association, his topic being "The School System of Vermont."

He enumerated the different classes and grades of schools in the State, and thoroughly explained the common-school system of the State, and the duties of district officers. He descanted somewhat severely upon the system of taxation in vogue, whereby the burdens of supporting schools vary by a world's breadth even in contiguous districts. The speaker gave a brief history of the Vermont school laws from their origin to the present. He ended by expressing the opinion that the people of the State are attached to the district system and are not yet ready for the town system. The real question, as Mr. C. stated it, is to improve the system without disturbing it.

THURSDAY AFTERNOON.

The Association reassembled at half-past one o'clock, and listened to the discussion, "One Normal School for Vermont, or Fourteen," which was opened by Prof. J. E. Goodrich, of the University of Vermont. He favored one Normal School only for the State. It appeared that when a Normal School was first thought of, only one was proposed; but the measure, in that shape, could not get through the Legislature, and therefore one was established in each Congressional district. Vermont pays \$1,500 to each of these Normal Schools, while New York pays \$18,000 to each of hers. Our Normal Schools, whose business it is to teach teaching, not arithmetic, grammar, etc., are not sufficiently aided by the State to bring them up to the proper degree of excellence and efficiency. Vermont has three colleges where she should have only one; and if one of these could be changed into a Normal School, and another into a fitting school for the one remaining college, Vermont would at one step advance full fifty years. Unite, consolidate, is the watchword of the day.

Prof. Edward Conant said that it was better to have one Normal School, properly endowed, than the three as they are; but we must begin with the people where we find them. It is neces-

sary to teach teachers *what* to teach before they are taught *how* to teach ; and, at the present, the three schools serve us better than one could.

At the conclusion of the discussion, Miss A. E. Thomas, of Castleton, read "The Engineer's Ride," which was received with much applause.

This was followed by a discussion on "The Mutual Relations of the School and State." Opened by Rev. R. G. Williams, of Castleton.

That there is a relation is a proof of civilization. The State has the authority to say that schools shall be maintained, and how many, and of what character. The State may prescribe what shall be the qualifications of teachers. It may require its schools to be just what it pleases to have them, and may use compulsion, if necessary. He believed in a government of the people for the people, but he believed that the State was larger than the school district.

A. R. Savage, of Northfield, was the next speaker. This question is one destined, at no distant period, to occupy a prominent position in our legislative councils. The State has the right to say that her citizens shall be educated, and it is not a flattering fact that there are over 17,000 people in this State, over ten years of age, who can neither read nor write. There is a remarkable connection between ignorance and crime. A large proportion of the inmates of our prisons are illiterate, and it is cheaper to build school-houses than prisons.

An address was then delivered by John H. French, LL. D., Secretary of the Board of Education, which contained many suggestive facts relative to the condition of common schools in Vermont. There are at present glaring faults, such as the shortness of school year, change of teachers, irregularity of attendance, inequality of taxation, want of necessary supervision, and the old district system.

In the evening an essay was read by Miss Thomas, of Castleton, on "The Relation of Elocution to a Complete Education," after which the Association was addressed by Rev. H. T. Fuller, of St. Johnsbury, upon the "Morals of our Public Schools." Society is not more injuriously affected from below than from above. The higher ranks of society need purifying ; public men

need it ; and it behooves teachers and parents to inquire if all is being done that can be done for the moral culture of the young. The children, high and low, base and pure, of our public schools, must and do come together, and there is not only association but there is assimilation, and the tendency is to level downward. The difficulties of the needed reform are great ; but since it is a needed reform, they must be met.

The closing address was given by Pres. M. H. Buckham, of the State University.

The central idea of the address (to which the fullest abstract would do only injustice) was the great possibilities that lie open to Vermont and Vermonters if they will, in the proper way, prepare themselves by self-development and culture. His analysis of the Vermont character was brilliant. The native Vermonter is a curious bundle of contradictions, full of strong convictions and equally strong prejudices, firmly bent on getting an education, because his native sense said it would "pay," but in his "wild" state looking with suspicion on all the refinements that were inseparable from this very education which he sought to utilize. Unamiable, rude in speech, uncouth, beneath his superficial coldness and seeming cynicism, he concealed a well of deep feeling, which, once excited, was not easily quelled. The country had no more bitter fighters than started up among the cold-blooded Vermonters. Yet on this unlovely scaffolding experience shows that culture has built noble edifices of manhood ; out of this unique compound of superficial coldness and latent heat has been wrought the highest and most beneficial types of American humanity. The utilization of this mass of splendid material rested upon the press, the pulpit, and the teacher. Pres. Buckham vigorously and wittily protested against the interpretation of the word *educate*, as to "draw out" instead of to "lead forth." He satirized that method of education that seemed as if it were to apply a stomach-pump to a child, plying it to the extent, almost, of *evisceration* of one who is treated as a patient rather than a pupil. He believed, with Humboldt, that education made a *finished*, not an *exhausted*, man.

In conclusion, Dr. Buckham eloquently reminded the teachers that there was not a small school-house in any "four corners" in Vermont, where the devotion of any faithful woman or man who

chanced to be the teacher, might not be stimulating, inspiring some "mute, inglorious" Agassiz, who should yet bless the world with the finding of the missing link between science and revelation; and Agassiz deemed it his highest title to glory to call himself in his last testament by the simple yet comprehensive name of teacher.

FRIDAY FORENOON.

The Association met at 9 o'clock, and opened with reading the Scriptures and prayer by Rev. H. T. Fuller, of St. Johnsbury. The executive committee reported that they had contracted a debt of \$25.50 in publishing the address of Prof. Brainerd, delivered at the last session. The treasurer reported a balance on hand of ninety-five cents. Voted to assess a tax of one dollar per member to defray the indebtedness of the Association.

Communications were read from the "New York Educational Journal," the "National Normal," and "The Massachusetts Teacher," each asking the adoption of that publication as the official organ of the Association. These communications were on motion referred to a committee for consideration and report. The Chair appointed Messrs. Fuller, Williams, and Buckham as committee. The next in order was the address by Hon. Henry Clark, of Rutland, on the "Duties of Citizens and Teachers." "The Relation of the Press to Education" was first discussed. The Press is the parent of American Literature. The speaker then sketched the plan for the support of education introduced by Hon. Geo. F. Hoar into the National Congress. We are a century in advance of other nations on this subject. New England started two hundred years ago in the work in which other countries have just begun. We should simplify rather than enlarge the field of study. We have too many text-books. The best text-book is the living voice.

The tendency is towards specific education. This should be limited. The great end of teaching is to make the individual strong and healthy intellectually.

The committee on resolutions were instructed to introduce a resolution memorializing Congress on the subject of the National Educational Fund.

The association then listened to an address by the Rev.

Franklin Tuxbury, of Brandon, on "The Wonders of Physical Geography."

In a human dwelling, water, warmth, and light are the essentials of life. These are furnished in the earth by our Heavenly Father. The address was a narration of the wonderful provisions which the Maker of the world has made with reference to the necessities of the creature man.

It is but justice to the speaker and the subject not to attempt to give any abstract in the short space allotted to us for the purpose. The most marked attention was given, and it is safe to say that the beauty, not to say the utility, of physical science has seldom found a more zealous, a more able interpreter.

AFTERNOON SESSION.

The nominating committee made the following report: President, Edward Conant, Randolph; Vice-Presidents (one from each county); Secretary, E. W. Westgate, Montpelier; Treasurer, H. S. Perrigo, Johnson; Executive Committee, H. T. Fuller, St. Johnsbury; R. G. Williams, Castleton; and Louis Pollens, Burlington. The above gentlemen were elected to their several positions, and St. Johnsbury was fixed as the place for holding the next meeting.

The constitution was so amended that hereafter an annual fee of \$1 is to be paid by gentlemen to retain their membership.

The committee to which was referred the matter of an educational journal, recommended that we accept the proposition of the "Massachusetts Teacher," and nominated Prof. J. E. Goodrich as editor, and further recommended that, in case Prof. Goodrich declined to serve, it be left with the executive committee to appoint an editor.

Miss Field, of Brandon, read an essay on "The Influence of Home upon Schools."

There is a lack of sympathy among parents for the teacher. Can parents discharge their duties to their children and never know the teachers? The labor of discipline might be lightened by home influence. There should be at least an "armed neutrality" maintained by the parent. The teacher finds some pupils in sympathy with his work; others are in direct hostility to it. A false spirit of honor prevails among pupils,—this

schoolboy sentiment does not obtain among men,—and the moral character of the school is injured by it.

The closing address was given by Prof. Louis Pollens, of Burlington, on the "Claims of Modern Languages in Modern Education."

Is it possible to substitute anything for Latin and Greek that would furnish so long and so useful a course of study?

The speaker was an uncompromising advocate of the idea that the German and the French languages are as well adapted for culture as the ancient, and of far greater utility.

Among the resolutions offered by the committee on resolutions was one asking our senators and representatives in Congress to use their influence in having the proceeds of the sales of public lands devoted to the promotion of educational interests.

Resolutions were adopted in memory of F. C. Hathaway, late principal of the People's Academy, Morrisville, and member of the State Board of Education; Prof. S. H. Pearl, formerly principal of the Normal School at Johnson; and Hon. B. H. Steele, late member of the State Board of Education. After a few words from President Dana, and the appointment of a committee, consisting of Messrs. Leavenworth, Westgate, and Perrigo, to revise the constitution, the Association adjourned *sine die*.

A. R. SAVAGE, *Secretary*.

MODERN SCHOOL-WORK IN ITS RELATION TO THE DEVELOPMENT OF THOUGHT IN THE PUPIL.

At the present time, while all the arts, sciences, and professions are rapidly advancing, we should naturally expect that the science of teaching would correspondingly advance. This natural expectation is fully realized when we examine the facts of the case. The best minds of the age have given their best thoughts and efforts to the improvement of education; and thus the most valuable results have been secured.

Modern school-work is well adapted to develop thought in the pupil, because the subjects taught are in themselves well calculated to arouse the mind and stimulate to investigation. In former ages, the case was far different. Then, verbal questions

and metaphysical abstractions occupied largely the attention of the scholar. Original investigation and freedom of thought were seldom attempted, and there was ready submission to the authority of those that had gone before. The field of inquiry was narrow, and much of it was only a barren soil. Now the field has been widened ; new arts and sciences have sprung into being ; the powers of observation are brought into constant use and training by the study of natural objects ; and in the classification of these objects and the study of the laws that govern them, the pupil may improve the whole range of his faculties. He is less likely to follow blindly the teaching of any one master, because so many and so varied means of information are within his own reach. Thus he is encouraged to compare different views, to judge of their claims to his belief, and to grow in the power of independent thinking.

Again, what is taught now is, on many subjects, much more accurate than in former years ; and, surely, thought is best developed when one proceeds from a correct basis ; *e. g.* the thinking powers are developed better by studying astronomy on the basis of the Copernican system, than by studying on the basis of the theory of Ptolemy.

In regard to the *manner* of teaching, great improvements have been made. Teaching is not now so much as formerly a dull, mechanical routine, in which the teacher imitates his predecessor, with only such improvement as his own limited observation may suggest.

Normal schools and other similar institutions have trained teachers to know not only *what* to teach but *how* to teach.

The good teacher studies carefully the order in which the mental powers are developed, and adapts his means accordingly. He trains the scholar in a great variety of ways and by different exercises, not merely by question and answer. In the very act of recitation, he endeavors to cultivate the important power of right expression, encouraging the scholar to use language of his own.

Although the teacher exerts the most important influence in determining the character of school-work, yet other agencies have an important influence.

Text-books have been so much improved that they give most

valuable aid to the good teacher, and without a teacher they often prove sufficient.

It may be asked, "If modern school-work is so well adapted to develop thought in the pupil, why do we not find now great geniuses, like the men of old?" These are not generally the products of art and methods, but of nature. Great geniuses are not so much needed now. We do not want an aristocracy of learning.

Instead of this we want what modern school-work tends to secure,—a wide diffusion of knowledge, and general cultivation of the thinking powers

C. S. HALSEY.

BE OF GOOD CHEER.

A FEW weeks ago a message flashed along the wires, containing but three simple words, and yet fraught with intensest sorrow. Not alone the stricken family, not only his associates in labor, not only his pupils in the class-room and on Penikese, not only the little ones who had often been cheered by the loving sympathy of the great man, but many hearts, in our own country and its sister nations, mourned as they read the tidings, "Agassiz is dead." "How are the mighty fallen!" How is the banner of progress trailed in the dust!

Journalists vied with each other in relating incidents of his life. They told of his work in the laboratory suspended while he soothed the sorrow of a little child whom he had accidentally jostled in passing; they told of his uniform courtesy and kindness; they told of his position in the foremost rank of *savants* in the New World and the Old; they told of the scene upon fair Penikese, when the company gathered around the Master who, in few, simple, chosen words, directing their thoughts "from Nature up to Nature's God," proposed a season of silent prayer. And with bowed heads they worshipped, and the sea-breezes and the waves had no power to break the silence.

A few days passed, and a company of friends gathered for the last legal rites, and the document which they read bore this title—"The Last Will and Testament of Louis Agassiz. . . Teacher."

O, brothers, sisters, earnest, faithful toilers in your chosen

work ! you whose sphere of action is a country school-house on the hillside, through whose cracked walls the winter winds sweep the drifted snows, whose blackboards are destitute of paint and walls of garnishing, save

“The jackknife’s carved initial,”

o less than the more favored members of the fraternity of teachers, — do you realize the meaning of these words ?

Does your heart thrill with new emotions, and do you find the monotonous, every-day duties of life surrounded by a glorifying halo as you read them ? Does it not give you a new feeling of pride in your calling to be able to claim kinship with the great naturalist, to enroll yourself as a co-laborer with one whose fame has echoed

“Across the awakened continents from shore to shore” ?

In spite of our boasted republicanism we cling to titles, and President, Professor, and Tutor indicate differing ranks among the nobility of mind ; but how immeasurably above these, while including them all, is the simple “Teacher,” the proudest title of American nobility.

Long years ago, over the mountains of Judea and through the valleys of Galilee, there passed one who is to us a perfect example. Of the life-work of the Great Teacher was it truly said, “It is finished.” With the one perfect pattern before us there is need of constant, unvarying toil, or our lives will prove worse than failures, since “no man liveth unto himself.”

A wealth of opportunities awaits our use.

“Songs of trust for the world to sing,
Work to be done with a cheerful mind,
Fruit to gather and sheaves to bind, —
These are the gifts which the glad years bring.

Visit the print-room of one of our noisy mills. Mark these cylinders of burnished metal bearing the lines of the pattern. Here, a workman is cutting the wondrous tracery slowly, with ceaseless care and patience, following the pattern at his side. His work upon the sheet seems awkward and coarse. But carry the eye along the line of that lever, backward and upward, until you see the polished cylinder and the end. While the work-

man patiently passes the graver over the surface before him, those diamond points are repeating the etching in wondrous miniature beauty upon the shining cylinder.

'T is so with our life-work, my friend. Mistakes are made, and often the blinding tears of disappointment and weariness hide the pattern from our eyes ; but ever above us, while we toil, angel hands are repeating our earth-tracery, and in the glad revealing we shall know that our work has been glorified *there*.

ALICE M. GUERNSEY.

GENERAL INTELLIGENCE.

THE State Normal School at Randolph has upwards of one hundred and fifty students ; that at Johnson, seventy. Peacham Academy begins its spring term with eighty scholars. St. Johnsbury Academy has now fairly installed itself in its new, elegant, and commodious structure, and enrolls one hundred and sixty-three students this spring.

The new Young Ladies' Seminary at Newbury has this year made a fine beginning under the efficient management of Miss Tenney.

Prof. Hiram Mead, of Oberlin, O., Theological Seminary, has been elected President of Middlebury College. The trustees anxiously await his decision of the matter.

Very few towns in Vermont have yet substituted the town system (so called) for the district system. The spirit of local independence, and the fear of increased taxation for support of schools, are the chief reasons why the rural towns cling to the old regime.

RESIDENT EDITOR'S DEPARTMENT.

THE SPHEROMETER.

THE Spherometer is designed to furnish teachers of Trigonometry an easy mechanical test of all the student's work. It is a quadrant of a circle of card-board, most accurately divided to hundredths of an inch along the base and having a movable arm or index, similarly divided. Both the base and the index have a scale of sines parallel to the scale of equal parts. The radius of the instrument is ten inches, making it far more accurate than the ordinary protractor.

By the instrument the functions of any angle may be readily found, and all plane triangles solved, since their solution depends upon the functions. A simple case will make this clear. In a right-angled triangle, the base and adjacent angle are given, to solve. Set the index at the angle and take the length of the base on the scale of equal parts at the base of the instrument. Now, the perpendicular to the index is the perpendicular to the triangle, and can be read off at once, while the length of the index to the same point is the hypotenuse, and the remainder of the quadrant is the other angle. All this requires but a moment. The solution of oblique triangles is equally facilitated. The instrument also does away with the laborious use of the Traverse Table in Surveying, since the bearing forms the angle, and the course the hypotenuse of a right triangle, of which the Latitude is the base and the Departure the perpendicular. Plotting, too, can be done by it, since it is only required to place the paper under the index set at the angle of the bearing, and draw by it the distance of the line.

Similarly all the cases of Spherical Trigonometry can be solved by its aid, and most of the reductions of Astronomy.

In the field-work to secure accuracy is exceedingly difficult. Such a mechanical test of all the work will aid very materially in this respect. All these seem to be secured by this elegant and inexpensive instrument, which must prove invaluable to teachers of Trigonometry. G.

OUR DAUGHTERS IN THE PUBLIC SCHOOLS.

BY MARTHA P. LOWE.

[From the Christian Register.]

It is an old saying that there is nothing perfect in this world, and we are often tempted to repeat it in regard to our common schools.

There are two or three objections to these schools for young girls of ten and twelve which readily occur to our minds, and unsettle our convictions of

their utility for the moment ; but when we really face these objections, we find that many of them are to be met with in other methods of education, and many can be removed by watchfulness on the part of the mother.

The first objection that we meet is the necessity of girls associating with the lowest classes, at an age when they have not the wisdom to choose well their acquaintances, and at the same time are losing the simplicity and docility of childhood. But if we look at the actual facts in the case, as the writer has done, we find that the same natural laws govern these coteries of little women that rule in general society. Like seeks like. The better educated, the more intelligent and refined, associate in one part of the play-ground ; the coarser and untidy gather in another part. The lines of demarcation are not, however, arbitrary. One circle in a measure shades off into the other. A pretty and intelligent Irish girl will often be found among the ranks of the Americans because there is no law to keep her out ; and a low-bred, untidy American girl will, on the other hand, be justly shunned by the better educated.

Here we see the great advantage of the common school system. Without any forcing, or sudden transitions, this healthy mingling of different classes is brought about, and the child of poor but thrifty parents has an opportunity to put herself on a par with the wealthy, while the children of the low and unthrifty families sink back to their own natural position, without having necessarily damaged the character of the others, but having even themselves in fact gained more good than they have done harm. Of course, we know that there will be the same false estimates in these miniature worlds that there are in the great world. Too much account will be made of the fine clothes of a scholar, the money or social position of the parents ; but this evil is not so great as in more select institutions. At Cambridge College, a young man nowadays, who fits up his room in velvet and damask, commands great respect ; and the squire's son, in the aristocratic schools of England, is afraid to like too well the merchant's boy. We escape in these common schools the narrowing tendency of an entire association with those of one's own class. Wealth and position are good things, but they often bring insolence and luxuriousness with them. These habits of manner and life are reflected easily in the young, and caught up by those a grade lower, so that the intelligent and conscientious mother, who has wealth and many servants, may feel grateful to have her daughter associate with the daughters of intelligent persons of limited means, who are perhaps in every way their peers at school, and who have habits of simplicity and industry at home. In regard to manners and external habits, there is, of course, a certain coarseness among the children of the lowest poor which is disagreeable ; but it is not half so injurious to well-bred children as the insinuating indelicacy of children in higher walks of life, who are neglected by their parents, and who often talk on themes unnatural for their age, and poisonous to their young hearers. There is evil everywhere like a miasma in the air. A venerated physician said of scarlet fever : " It is in the atmosphere, but your children need not take it unless you put them, by carelessness, in a condition for it." So the mother can

guard against all this moral pestilence, not by keeping her child away from other children, but by fortifying her against contagion.

Putting wealth and position aside, and looking at culture alone, we doubt if it is wholesome to live entirely in an atmosphere of the highest intellectual pretension. It has a tendency to dull originality and produce a kind of exclusiveness which will not fit one to play her part wisely in the world of humanity. Great men, it is said, generally spring from small villages, where they were on terms of equality with their worthy neighbors, low and high. So we think young girls will develop a finer flavor of character if they are brought up more or less in contact with all classes in the community, which is likely to be the case, in country towns at least, if they attend the public schools.

This gradual blending of different classes in our schools is certainly the great secret of our self-respect, stability, and energy as a whole people. It would be a pity for us to lose faith in this cardinal principle of our government, when old autocracies like Russia are setting an example to the whole of Europe. In those interesting papers on Russian Schools, in the "Woman's Journal," translated from the French by Miss Brackett, we find the different ranks gradually blending; not the very highest with the very lowest, but the upper and lower middle classes coming in contact, which is virtually the same thing, as the peasantry can by degrees rise into the former class, and the decaying nobility are constantly merging into the latter.

We cannot help thinking that, if private schools become numerous in the country, they will damage our public schools in the estimation of our citizens. There are some motives under which they are desirable. When a mother, for instance, wishes certain acquirements for her daughter of sixteen or eighteen, to perfect her in a language, to give her a knowledge of *belles-lettres*, to have her read history and poetry with an accomplished and gifted person, to give her an intellectual stimulus which she will retain all her life, these private schools are justifiable, and even necessary. But if any number of parents draw young girls from the public schools, and establish private ones on merely social grounds, we think they do an injury to the community. Others will follow their example, the respect for our common schools will be diminished, and their actual tone of scholarship will be lowered.

The second objection to the public method of education is that the number of scholars is so large that the teacher has not a proper amount of time to give each class. This difficulty can and ought to be remedied by spending money to employ more teachers in each school, rather than to build these enormous structures of brick which greet our eyes in town and country; but while we are waiting for these improvements to be made, there are some things which we, as mothers, can do ourselves to alter the state of things. It is alleged that in the grammar schools the grade of scholarship is low, because the bright children are held back by an inert mass who cannot keep up to the mark. This we believe to be true, and the worst of it is that these intelligent ones do not merely wait for the others, but they lose their ambition, their habits of study, and are content merely to pass muster, knowing that few are likely to rise above them. This difficulty, however,

occurs also in private schools. There are always dull scholars with the intelligent ones. The removal of it rests much with the teacher, who should have time to so classify the scholars that none will be impeded in their progress. This can only be done in our public schools when the authorities shall place more teachers in each department, and have a higher standard of character and ability in the persons employed. We believe that mothers can supply a good many of the advantages of private education by being conversant with their daughters' studies. This duty need not be irksome; ten or fifteen minutes a day, alternating with different lessons, will enable the child to review, under the eye of the mother, what she has learned, and break up bad habits of study, mannerisms in reading, and general confusion of ideas.

The third objection made to these grammar schools is the great length of time for the sessions, and the constrained position in which young girls are kept for long periods of the day. We believe the sessions are too long, but here again this difficulty can be removed very much, if we follow the example of those Russian teachers who give their classes five minutes for recreation several times between the recitations.

We have been taking into consideration the grammar schools alone, in these remarks, and the education of young girls between ten and twelve and fourteen years. When we look at the high school we find one set of difficulties removed, but another set develop themselves. The objections which many find in regard to a too mixed company is here very much removed, as the number of pupils has steadily fallen off all the way up to the highest classes, the children of the poor being called away to assist their parents at work as soon as they have learned the common branches of education; so that the young girls who are left in the high schools are on a comparative equality in ability and general breeding. The chief complaint here is, that there is too much study, rather than too little. This complaint is grounded on the well-known fact that many lessons are learned out of school. We had occasion to speak on this subject, not long ago, with a mother of great intelligence, whose two daughters, of the ages of fourteen and sixteen, were in the high school. She admitted that this statement was true in regard to lessons, that she regretted it, as her daughters had no time to give to any housewifely duties, and had barely opportunity for necessary recreation. We inquired of the young girls themselves if there were not time for these lessons in school? The answer was, No; because so much time was given to recitations, an hour often being required for each one. Here, again, it is evident that the classes are too large, or else that the teacher is not animated and prompt in his manner of conducting the lesson. Four hours and a half occupied mainly with recitations must be injurious to the elasticity of the mind. When one of the aforesaid young girls had a severe cold on her lungs, it was useless to expostulate with her and urge her to study at home for a few days. "She would lose her marks," and that would be unbearable. We think this system of marking a very false one. It is no more a test of thorough training than the "parts" of the college boy; and the diploma of the school is worth no more in after life to the young girl than being first

scholar in his class may be to a young man in the future. Parents must have independence enough not to care eagerly for the places where their children stand before the community, but rather for their thorough and genial culture, and for the development of all their faculties. Many a young lady comes out of school primed on all the questions which a committee can ply her with, but stiff, unable to converse, with no opinions upon literature or art, and, worst of all, incapable of handling a broom or making a cup of gruel.

If mothers would have the courage to keep their young girls at home (and boys, too, we might say, for we see no essential difference in the requirements of each) whenever they are unfit to attend school, we think they would learn their lessons, and have time left for domestic pursuits and manual occupations, which are so important for a girl and boy to practise at this turning period of their lives. Then, instead of walking encyclopedias, men of theories, or pretenders at knowledge; instead of women with unnatural intellectual proportions, or narrow, dwarfed minds, or shallow culture, we shall have robust, harmonious human beings fitted to do their various work for humanity.

FRAGMENTS.

THEY have a method of teaching in Germany so admirable that it is a wonder it has not, ere this, been extensively imitated in American Schools. We refer to *picture-reading*.

The teacher brings before his scholars a picture of some sort, and holds it up for them to study. Of course, if the children are quite youthful, the subject of the picture should be correspondingly simple; but if they are old enough to appreciate complicated and recondite symbolism, it may be rich and varied in what it expresses.

They crowd around (there is not much of what we call *order* in a German school), intensely eager to give the picture a thorough inspection. They study it closely in every part, every faculty on the *qui vive* to discover its real purpose, and each stimulated to surpass the rest in the fruits of his observation.

After reasonable opportunity has been given to examine it, it is withdrawn; and the scholars are required to write out their impressions of it in the form of a composition, to be delivered at a subsequent period.

We need not say what a remarkable agency this must be for the training of the perceptions to accurate discrimination; the reasoning powers to acute deduction and pertinent generalization, and the mind at large to a free and appropriate use of language. We can conceive of no one agency to compare with it in a fruitful combination of uses.

So important is it considered in Germany that it is not left to the whims of the teacher, but is imperatively required, as an almost daily exercise, by the governments. But if it were introduced by American teachers into

their schools, many a school committee, having exclusive faith in text-book lessons, would denounce such child's play with pictures as a ridiculous waste of time, and incontinently put it out again.

WHY in the otherwise excellent course of study for the Newton High School is Chemistry arranged to precede Natural Philosophy? There is a normal sequence including most of the sciences, dependent either on their relations to each other or on the natural order of mental action in regard to them. Now, certainly Natural Philosophy, in this natural order, should precede Chemistry; for the mind decidedly takes cognizance of substances as wholes before it analyzes them into constituent parts.

In some of the Normal Schools the same precedence is given to Chemistry, but it is with a clear recognition that the natural order of the subjects is violated. The reason is, that as most of the scholars who enter the Normal Schools have already had a course of instruction in Natural Philosophy, it is judicious to begin their scientific course in the Normal School with Chemistry.

IN one of the meetings of the Elementary Department at the last Mass. Teachers' Convention in Worcester, one of the speakers earnestly advocated the employment of express methods to create full and effective vocabularies for the scholars, as otherwise this important result would not be accomplished. He was answered that no such methods are necessary, because the teaching of subjects is the teaching of language. Thus, when a scholar is learning geography or history or arithmetic, he is necessarily learning the words by which that subject is elucidated in the text-book, and of course must be directly adding words to his vocabulary.

This is very plausible, and the only trouble with it is that it is not true. The scholars in our public schools have all their lives been studying subjects; yet if there be one defect in our schools which is paramount to all others, and specially humiliating, it is the meagreness of the vocabularies with which our children are sent out from their schools into the world. If it were otherwise, and the study of subjects *were* sure to furnish the mind plentifully with symbols of thought, how celebrated for the rich copiousness of their diction and the affluence of their compositions the scholars of our public schools would have been from time immemorial! One smiles as he contrasts the fact with such a statement.

The reasons for this apparent inconsistency of results with causes are easily explicable after all. Our scholars associate a certain amount of meaning with the words of their text-books, and as they study them, when arranged intelligently in sentences, obtain some definite mental impressions. But the *separate words* remain all the while quite vague and indistinct in significance, so that, when they are separated from the context, the scholars cannot define

them. This can be proved by experiment at any time. And the mind is only induced to take possession of words and add them to its furniture when it has clear, definite, and familiar associations with them as symbols of thought.

Through this mistaken idea that the teaching of subjects is necessarily the teaching of language in a profitable way, most teachers go on assigning lessons and hearing recitations as if the scholars knew accurately the meaning of the words they are dealing with. It is astonishing to take up a class of children, quite advanced perhaps, and discover how cloudy their knowledge is of many a word which has been occurring all along in the progress of their studies.

It is certain that express methods must be instituted to create vocabularies.

H. F. H.

CLASSICAL AND HIGH SCHOOL TEACHERS' ASSOCIATION.

THE Seventh Annual Meeting of the Massachusetts Association of Classical and High School Teachers will be held in Worcester, in the High School building, Walnut Street, on Friday and Saturday, April 10 and 11, 1874, commencing at 10 A. M.

SUBJECTS FOR DISCUSSION.

1. Method of studying Geometry. (10.30 A. M.)
2. The study of English Literature in connection with the study of Classic Literature. (11.15.)
3. The pronunciation of Latin. (2 P. M.)
4. To what extent, and how, shall the modern languages be taught in our High Schools? (3.30.)
5. Physical Education. (Evening, 7.30.)
6. Treatment of Latin and Greek Composition. (8.30.)
7. How can the Preparatory Schools best meet the increasing requirements both of the Technical Schools and the Colleges? (Saturday, 9 A. M.)
8. The difference between the aims and results of secondary education in Europe and America. (11.)

A full attendance is requested. Brief essays on most of the topics will be presented. It is hoped that every Teacher will prepare himself to take part in the discussions.

CHAS. HAMMOND, *President.*

W. F. BRADBURY, *Rec. Secretary.*

THE Forty-first Annual Meeting of the Essex Co. Teachers' Association will be held at City Hall, Gloucester, April 3 and 4, 1874.

FRIDAY. — MORNING SESSION.

At 9.00. Organization and preliminary business. — At 9.30. Lecture. "Language Teaching." A. D. Small, Supt. of Salem Schools. — Discussion opened by D. B. Hagar, Prin. Salem Normal School.

AFTERNOON SESSION.

At 2.00. Lecture. "Causes of Failure in Teaching." T. H. Barnes, Prin. Bigelow School, Boston. — At 3.00. Lecture. "Preparation of the Teacher for his Work." A. G. Boyden, Prin. Bridgewater Normal School. — Discussion.

EVENING SESSION.

At 7.30. Lecture. "Some of the Elements of Success in Teaching." Followed by Select Readings. H. H. Lincoln, Prin. Lyman School, Boston.

SATURDAY SESSION.

At 9.00. Election of Officers and other business. — At 9.30. Lecture. "Grammar, — to what extent shall it be taught in our Grammar Schools, and how?" W. E. Eaton, Charlestown. — Discussion. — At 11.00. Lecture. "Government of Schools." W. G. Sperry, Prin. Beverly High School.

The Eastern and Boston & Maine R. R. will probably extend the usual courtesies to teachers.

Trains leave Boston for Gloucester, on Eastern R. R., at 7.15, 11.15 A. M., 2.15, 5.00, 6.20 P. M.

Leave Salem for Gloucester at 8.05 A. M., 12 M., 2.55, 5.40 P. M.

Leave Gloucester for Salem and Boston at 7.25, 9.45 A. M., 2.15, 4.55 P. M.

WM. P. HAYWARD, *Rec. Sec'y.*

THE Twenty-first Annual Meeting of the Middlesex Co. Teachers' Association will be held at Lyceum Hall, Reading, April 3 and 4, 1874.

President. L. S. Burbank, Woburn. Vice-Presidents. — Cyrus A. Cole, Reading, John T. Prince, Waltham, L. L. Dame, Stoneham, Miss M. E. Eaton, Charlestown, Miss E. J. Jaquith, Woburn. Executive Committee. — G. A. Southworth, Somerville, J. D. Billings, Cambridge, Charles Morrill, Lowell, Mrs. A. F. Waters, Newton, Miss Annie E. Johnson, Framingham. Secretary and Treasurer, John S. Hayes, Newton.

ORDER OF EXERCISES.

The Association will organize on Friday, at 10 A. M., for preliminary business. At 10.25. Paper. "Natural Sciences in our Grammar and High Schools." Experimental Exercise by Class. C. A. Cole, Prin. Reading High School. At 11.20. Paper. "Grammar and Language in our Public Schools." Annie C. Sullivan, Prin. Cambridge Training School. Discussion. Opened by W. E. Eaton, Charlestown.

AFTERNOON SESSION.

At 2.00. Paper. "Sex in Education." Mrs. A. F. Waters, M. D., Newton. At 2.30. Paper. "Government of Schools." W. G. Sperry, Beverly. At 3.00. Class Exercise in Music. H. G. Carey, Teacher Music in Reading Schools. At 3.20. Paper. "Are the Children of our Schools overworked?" Geo. T. Littlefield, Charlestown. At 3.50. Paper. "How shall Examinations for Promotion be conducted?" H. F. Harrington, Supt. New Bedford Schools.

EVENING SESSION.

At 7.30. Lecture. "Eclectic Education." Prof. W. N. Niles, Mass. Inst. of Technology. Select Readings. By Mrs. M. A. Mayhew, Boston.

SATURDAY SESSION.

At 9.00. Election of Officers and other business. At 9.30. Paper. "Special Preparation,—The Great Want of our Schools." B. F. Tweed, Supt. Charlestown Schools. At 10.00. Paper. "Matter and Methods of Teaching History." J. D. Billings, Cambridge. If opportunity offers, a paper will be read on "Spelling," by an ex-teacher.

N. B.—As this Association is compelled to hold its sessions two days, it is hoped that every teacher will attend all of its exercises.

NOTICES.

All friends of Education are invited to attend the Convention and participate in its exercises.

The names of members of the Convention will be registered, and the number in attendance from each town in the County will be published in the Reports.

The usual hospitalities will be extended to members of the Convention.

Free return tickets will be furnished on the Boston & Lowell, Boston & Maine, and Fitchburg Railroads, on application to the Secretary.

Trains leave Boston for Reading on B. & M. R. R.—At 7, 7.30, 9.15, 10.15, 11.30 A. M., 12 M., 1.30, 2.30, 3.30 ex., 3.40, 4.20, 5 ex., 5.35, 6, 6.45, 7.30, 11.15 P. M. Return, 6, 6.55, 7.40, 8.10, 8.50 10.15, 10.30 A. M., 12.43, 1.12, 1.30, 2.20, 3.20, 4.20, 5.15, 5.59, 6.20, 7.30, 8.30, 10.15 P. M.

INTELLIGENCE.

WE wish to remind our friends once more that we are dependent upon them for fresh intelligence relative to changes of location of the patrons of our journal.

During the past month the general "even tenor of our way" has been maintained. The Normal Schools closed their semi-annual labors in January, recruited through February, and are again hard at work. As a whole, they begin with good classes. Bridgewater starts with a greatly enlarged and improved boarding-hall. Misses Clara Prince and Edith Leonard take the classes of Miss Mary Leonard while she is in Europe.

The Secretary of the Board of Education is pressing the Legislative Committee on Education for the passage of a half-mill tax, and a change of law relative to the creation of the office of Superintendent of Schools in cities; also the districting of the State for the purpose of better supervision of all the schools.

Mr. Philbrick's address before the Social Science Association, relative to the better supply of teachers for our country schools, was sensible and able. It is evident that the community at large are becoming deeply interested in this question, and will, at no distant day, move in the matter.

BOSTON. — The English High School teachers, whose selection was noticed in our last, have been duly confirmed, namely: John P. Brown, as master; George F. Leonard, Manson L. Seavy, Jerome B. Poole, and William G. Norwell, sub-masters.

The committee have also confirmed Sarah E. McPhail as grammar assistant in the Adams District, and Adeline H. Cook, primary assistant in the same district; Emma A. Gordon and Emma L. Collins, teachers in the Bowditch School; Lucy W. Bird, head assistant in the

Brimmer; Sarah J. Lothrop, in the Lyman District; and Mary L. Cogswell and Lizzie A. Sanborn, in the Sherwin School.

CHELSEA seems to start off with the best of prospects, under the lead of the new superintendent. Mr. Kimball never showed better appreciation of school needs, or clearer understanding of remedies, than in his first report to his committee. It will be no fault of his if the evils that have been a source of annoyance to the city are not promptly remedied.

SOMERVILLE is steadily advancing to the front as an educational city. * The addition of G. A. Southworth, master of the Prescott School, to the corps of masters, is a great gain to the city. Mr. Davis, the superintendent, is a great worker, and though long in this position his interest and efficiency lags not in the least.

NEWTON is busy in making a survey of the land, as the committee are largely new, and the form of government has doffed the town system and donned city customs. In one respect the city is greatly favored. Mayor Hyde, who, by virtue of his office, becomes president of the committee, was long a member of the Board, and has a deep personal interest in the schools. George E. Allen, president of the Common Council, becomes a member of the Board, *ex-officio*. Mr. Allen is perhaps the most efficient member of the School Committee the town ever knew, excepting always the renowned Dr. Bigelow. For many years he sat at the helm of the school system, and the growth in actual power to educate was never greater than then; hence his return is welcome. Mr. H. M. Willard enters upon his second year of service; his management has won the con-

fidence of all and excited the opposition of none. Mr. Worcester is leader among the elected members. The schools promise to be managed in a way to continue Newton in the first rank educationally.

LYNN is slow to change, believing that a thoroughly mastered imperfect system is better than a revolutionary one, be it never so good. It is clear that this city has the best matured committee system in the State, and the results bear comparison with most of the cities more scientifically supervised. It is seldom that committee give so much time and good thought to school matters.

SALEM is prospering finely under the direction of Mr. Small, who has been unanimously re-elected. The field required skilful tilling when he entered it, and he knew how to do it successfully, judging from results. The city will soon regain what she lost during the years of disagreement between committee and council.

FITCHBURG has been through a season of change. Miss Maria A. Woodbury leaves the profession for a mercantile position, as does Josie A. B. Gleason; and want of health causes Miss Edna M. Lowe to retire from the ranks. Brighter inducements tempt Fannie A. Bogart to resign. These vacancies are filled by promotions, and from experienced teachers outside. Miss Sarah E. Hayden goes into the High Street School; Miss Sherman, into the South Street; Eliza A. Kendall, into the Day Street; Miss Barbour goes to South Fitchburg; Misses E. E. Ames and Hattie A. Friar succeed Misses Mattie and Addie Goodrich; and Misses Bernard and Wilder go to the Middle Street School; Miss Reynolds takes the Dean Hill School; Miss Fernald the Mt. Elam, and Miss Hayes takes charge of the Wachusett School.

ARLINGTON was never in a better condition than now in regard to efficient, practical teaching. Mr. Tuttle, in the

High School, and Messrs. E. O. Grover and S. J. Dunbar, in Grammar Schools, are doing thorough work pleasantly. Judge Parmenter is keen, able, and fearless in his management of the schools.

MALDEN has had a year of trials. The West School has been a battle-ground until within two years, and then other disturbances arose which threatened serious results to the Centre Grammar. The High School gladly took back a former principal, and now the Maplewood School is in trouble. May a more peaceful star usher in this school year.

SPENCER. — At the last Town Meeting our School Committee was increased from three to six by the addition of Dr. E. M. Wheeler, Rev. H. A. Shorey, and Rev. A. O. Hamilton. There is a prospect that our schools will be better graded after this. An assistant has already been procured for the High School, and alterations in the High School building are being made for her accommodation. The committee intend hiring a better class of teachers than heretofore.

SHELBURNE FALLS. — E. A. Baldwin, a member of Amherst College and an experienced teacher, has been engaged to take charge of the High School, which will begin the first week in April.

BLACKINTON. — The Union Graded School closed on Friday for a month's vacation. Miss Ford, teacher of the High School, and Miss Nims, of the Intermediate Department, have resigned. Miss Woodcock, from the Primary School, takes Miss Nims' place.

THAT old famous Training School, Phillips Academy, at Exeter, maintains its ancient reputation and patronage, the catalogue for the present year showing a total of one hundred and sixty-eight students, — forty seniors, fifty-two mid- dlers, forty-six juniors, and thirty preparatory scholars.

SALEM. *School Matters and Changes.* — The completion of the new school-

house in South Salem makes necessary a new division of school districts in Ward V. That section of the city will hereafter be divided into two Primary School districts, instead of being comprised in one, as heretofore. The first district will include that part of the ward north of Gardner Street, and the place on the opposite side of Lafayette Street, running from Lafayette Street to the harbor. The second district will comprise the remainder of the ward. The new school-house is to be for both a Grammar and a Primary School, which are to be designated as the Holly Street Grammar and Holly Street Primary Schools, respectively. The Second Visiting Committee have been authorized to secure an additional assistant for the Grammar division, and the Third Visiting Committee to appoint a principal and assistants, not more than two, for the Primary division. The Browne School-house is to be occupied by the Browne Primary School exclusively. The Superintendent of Schools has been directed to make the necessary transfers and changes of teachers, and the new system goes into effect to-day. The Rev. George Batchelor has been assigned as Committee on the Holly Street Primary School. The priest of the French Catholic Church has petitioned the School Committee for the establishment of a school where the French children of the city who cannot speak English can be taught. There are said to be many of this class in the city, most of them in Ward V, and in all there are about two hundred French children

who should be taught in the public schools. The committee will ask the City Council for the necessary rooms for the accommodation of these children, and also to ask for the establishment of one or more ungraded schools. There are to be added to the French readers in the High School such books as are specified by the authorities of Harvard College, with reference to young ladies who may desire to obtain certificates of scholarship from that institution. Professor D. B. Hagar has been appointed Chairman of the Committee on Music, and Judge G. F. Choate Chairman of the Committee on Drawing.

On Saturday evening the Executive Committee met and made the following transfers and appointments of teachers: Mr. O. B. Stone, Miss Adeline Roberts, Miss Ella F. Kehew, and Miss S. P. Hamilton were transferred from the Browne Grammar School to the Holly Street Grammar School; Miss Georgiana Kelew was transferred to the latter school from the Pickering Grammar School; Miss Harriet M. Tyler and Mrs. Gill were transferred from the Browne Primary to the Holly Street Primary School; the teachers formerly in the Browne Primary, Ropes, and Harbor Street Schools were assigned to the Browne Primary School, and Miss Myra A. Prime and Miss Susie Smiley were appointed for that school in addition; Miss M. E. Kinsman was transferred from the Bowditch to the Pickering School, and Miss Clara Turner was appointed to fill the vacancy in the Bowditch School.

Books.

SURVEYING AND NAVIGATION: with a Preliminary Treatise on Trigonometry and Mensuration. By A. Schuyler, M. A. Published by Wilson, Hinkle & Co., New York and Cincinnati.

The author considers it necessary to preface his work on surveying by a thorough treatise on trigonometry, in place of a meagre sketch of this subject, such as, he says, is usually to be found in works of this character.

At the beginning he states his objections to the modern method of defining the trigonometric functions as ratios, and expresses a preference for defining them as lines. He says: "By this means, all ambiguity in regard to the word *ratio* is avoided; it is shown at once how the logarithm of the sine, for example, can reach the limit 10, which would be impossible if the limit of the sine itself is 1, and thus the whole subject is made much more intelligible to the student."

This paragraph certainly indicates a want of clearness in Mr. Schuyler's conception of his subject, and the unfavorable impression made by these confused statements is not removed as we look farther into the book.

About two hundred pages of the work are devoted to the subject of surveying, and of this space one quarter is taken up with directions for the survey of public lands. The description of field instruments is borrowed from the manual of Messrs. W. & L. E. Gurley, of Troy, N. Y., which, however valuable as an advertisement for the manufacturers, is hardly to be commended as a text-book for the student of surveying. Only one kind of vernier is described, and that is of a form so unusual and incomplete that it is rarely found, except on a cer-

tain grade of the surveyor's compass, so called.

The methods given for finding the variation of the magnetic needle are neither complete nor correct. On the subject of areas is shown an awkward process of subtracting from the enclosing rectangle of the field to be determined certain exterior triangles and rectangles. This clumsy device, as old almost as the multiplication table, is called a new method, and is attributed to a Mr. Pogue, of Kentucky. The advantages of Mr. Pogue's invention are set forth in the Preface as "giving always a uniform result from the same field-notes, and thus avoiding disputes about the *different results of the ordinary method.*" Here, again, there seems to be a sad confusion of ideas.

On the whole, we fail to discover much that is new or valuable in the work.

BOOKS RECEIVED.

THE EDUCATION OF AMERICAN GIRLS. A Series of Essays. Edited by Anna C. Brackett. Published by G. P. Putnam's Sons.

THE NEW CHEMISTRY. By Josiah P. Cooke, Jr. Published by D. Appleton & Co.

THE ST. NICHOLAS for April is a marvel of beauty and interest for the young, and if children are not furnished with it they would show good taste by "crying for it."

OF THE ATLANTIC, OLD AND NEW, LIPPINCOTT, and THE POPULAR SCIENCE MONTHLY, the same may be repeated that has been said of previous numbers. We have not time to consult Roget for new terms of commendation.

THE MASSACHUSETTS TEACHER.

[B. F. TWREED, Editor for May.]

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SEX IN EDUCATION.

It is with an apology that I offer this article to the readers of the "Massachusetts Teacher," who must be weary of the subject; but Mr. Collar's able article in the February number, though aiming to be just, seems to me to endorse the book beyond its merits.

Its physiological truths cannot atone for its partiality and coarseness: in direct confirmation of this latter assertion, let me refer to pages 14, 44, 95, 115, 148, 179; also to the quotations from Virgil and Le Comte A. De Gasparin, obviously given in the original because the English mind is incapable of conceiving and the English language of expressing the phenomenon there described. Mr. Collar, I believe, charitably calls these paragraphs *humorous*.

The rapid sale of five editions of the book is no proof of its merit: one reason may be the manner in which the subject is treated, and another, perhaps the principal reason, that the opponents of the higher education of women as well as of co-education hoped to find in its pages a logical foundation for their opposition.

Dr. Clarke's book seems to contain the following prominent points:—

The health of American women is rapidly declining, consequently the Americans are decreasing in numbers.

The principal cause of this ill health is excessive study.

The inclination of women is to despise their organization, to desire and attempt to assimilate themselves to men.

Identical education is a failure.

Co-education is inexpedient.

The first assertion, or a parallel one, has often been made. Herbert Spencer and other thoughtful men have written on the increasing ill health in highly-educated civilized communities ; but Dr. Clarke alone, to my knowledge, eliminates one sex in his consideration of the subject. Even in his quotation from H. H., pages 163-167, though her comparison is between the boys as well as girls of Nova Scotia and New England, by putting girls in italics (which does not occur in the original) he misinterprets the author's meaning.

Dr. Clarke is deserving our gratitude for calling attention to the causes of ill health ; but if he assert mental education to be the CHIEF cause, he should prove, which we think he cannot, that the highly-educated American girls are greater invalids than the uneducated. That excessive mental education without proper physical education inflicts its penalties on both sexes, Dr. Clarke must acknowledge, and we believe on both sexes alike ; for, although we read on page 54, —

“The duration of the formative period is shorter for a girl than a boy. She ripens quicker than he. In the four years from fourteen to eighteen she accomplishes an amount of physiological cell change and growth which Nature does not require from a boy in less than twice that number of years,” —

We may be sure Nature will provide for its own creation. If twice as much be required from a girl, the corresponding power to fulfil each obligation will be given, and that, too, without a deduction of power in other directions ; to deny this is to affirm that, granted equal intellectual power, as Dr. Clarke emphatically has, on page 163, a boy's capacities are in harmony with his organization, and a girl's are not. Surely, we suffer from a lack, not an excess, of education.

Mr. Collar, in partial explanation of the statistics on page 139, cites the fact, “*well known to physicians, that the disinclination of American girls to marriage is rapidly increasing.*” To advance physical weakness in consequence of excessive mental effort as

the cause, seems a very poor argument: if he acknowledge the improved opportunities for education offered to women from 1830 to 1870 to be the principal reason, we cordially agree with him. Probably the Turk of the harem that Dr. Clarke so much admires has little difficulty in adding to his "*bouquet*" at pleasure, though, by the way, it has been and is a marvel to me how, under existing Eastern laws and customs, Dr. Clarke was admitted into its precincts; but Western men made a great mistake when they decided "Ought women to learn the alphabet?" in the affirmative. That concession they granted her; *how* she shall learn it with Dr. Clarke's permission, she is perfectly able and willing to decide for herself. She has learned that she is an *individual*, with mind and will, with faculties capable of rare development, capable, too, of self-support. Marriage is no longer a *necessity*, and the position must be made more acceptable to induce her to leave the independent one she now occupies.

Of the next point we have inclination and space only to regret that Dr. Clarke has been so unfortunate in his acquaintance with women. We believe she respects her organization from choice as well as necessity, and she envies man only certain privileges from which he unjustly excludes her.

Page 127. "Identical education of the two sexes is a crime that physiology protests against and that experience weeps over."

In support of the above we have a description of some of the doctor's patients,—Miss B., an actress at fifteen, and Miss C., a bookkeeper. It is presumable these young ladies are illustrations of the results of identical education, but we have no evidence on this point; of a third patient details may be pardoned, as they furnish an apt illustration of the injustice of the book.

"Miss D—entered Vassar College at the age of fourteen. She studied, recited, stood at the blackboard, walked, and performed her gymnastic exercises from the beginning to the end of the term just as boys do,—performed all her regular college duties regularly and steadily. She graduated before nineteen, with fair honors."

We have the assurance of the president and resident physician of Vassar College *that no such case of precocity ever occurred there*; but even were the evidence of this untruthful or imaginary

individual to be credited, she violated the instructions of her physician and teachers. Dr. Clarke's knowledge of professional courtesy should have prevented him from depreciating the course of instruction pursued at Vassar unless he had verified his statements.

Dr. Clarke, on page 20, says that throughout the book education is not used in a limited sense of intellectual or mental training alone. Can any one believe that identical education in this broad sense has ever been tried in America except in a few exceptional cases? Identical mental education may produce the results he deplors : that we will not discuss ; if it has, it is largely owing to a neglect of identical physical training. Mary Somerville, Harriet Hosmer could tell Dr. Clarke what studying, rowing, riding, and swimming,—in short, identical education, as he uses the word,—has done for them.

Of identical co-education we have not sufficient data from which to judge,—it is almost an experiment as yet ; but Dr. Clarke tells us, on page 142, that Pres. Magoun, of Iowa College, reports the happy intellectual, moral, and religious results of the experiment, but leaves us ignorant of its physiological results. The presidents and physicians of other colleges have atoned for this deficiency, and we venture to call Dr. Clarke's attention to the valuable evidence he could easily have obtained had he so desired.

Pres. Fairchild, of Oberlin College, says :—

“Nor is there any inability on the part of young women to endure the required labor. *A breaking down in health does not appear to be more frequent than with young men.*”

Pres. White, of Cornell :—

“As a rule, the young women average about ten per cent better on the examination papers than do the young men : they have raised the average of conscience and manliness more than ten per cent. *As to health*, they are quite as well as the young men.”

The old arguments of mental inferiority and moral injury find no supporter in Dr. Clarke ; he founds his objection simply on *physical* injury. And in concluding, let us see if his objections

cannot fairly be met as regards our oldest and perhaps best college, Harvard, both against identical education and co-education. He states, perhaps, *two* objections : —

On page 150. "Harvard would require, in addition to its present resources, from one to two millions of dollars."

On page 158. "The organization of studies and instruction must be flexible enough to admit of the periodical and temporary absence of each pupil, without loss of rank or necessity of making up work, from recitation, and exercise of all sorts."

Several times in the book Dr. Clarke suggests the establishment of separate colleges for women ; these would necessarily require an immense outlay of money. If it be necessary, why not allow Harvard a portion of this sum, thus rendering it able to receive girls? The amount, though small, it has extorted during the last year from young ladies whom it has examined, and informed that through their own unaided efforts they have really learned something, might also be properly used in this way ; but we have the opinion of Mr. T. W. Higginson, — and his authority on Harvard matters none can deny, — that instead of costing one million additional dollars, it need not cost one additional cent.

Of the flexibility of studies at Harvard, we call attention to the following facts: the *elective* instead of the required system of studies has been introduced ; in many departments, rank is decided by monthly or quarterly examinations instead of by daily recitations ; and also this important resolution adopted January 14, 1874 : —

"*Resolved*, That the Board of Overseers consent that for the academic year 1874-1875 all rules imposing penalties or marks of censure upon Seniors for absence from church and from recitations, lectures, or exercises other than examinations, be suspended."

Surely, these statements answer all Dr. Clarke's objections.

We thank Dr. Clarke for his interest in our sex, and for some valuable suggestions ; but there will soon graduate from the Medical School of Boston University, and by and by from those of Harvard and Yale (President Eliot and his friends notwithstanding), those whose advice will be far more valuable to us, as they will combine with an observation and knowledge of physiology

equal to Dr. Clarke's that which he can never gain, — experience. Perhaps they may be able to convince Dr. Clarke that the physical condition of his own sex is also worthy his consideration.

I. M. K.

*THE UTILITY OF CLASSICAL STUDIES AS A MEANS
OF MENTAL DISCIPLINE.*

[*A Paper read before Wisconsin Teacher's Association, Dec. 30, 1873, by Prof. Wm. F. Allen, of the State University.*]

By this topic I understand to be intended, not a general defence of the disciplinary value of classical studies, but rather a definition and analysis of this value ; that is to say, an examination of the kind of benefit derived from them, and the class of students to whom they are best adapted. With this view, I will lay down the proposition that in a course of study the primary object of which is discipline, there is a certain stage at which the ancient classics form the very best basis of instruction ; and as a corollary to this, that in any course of study, so far as the object is discipline, the ancient classics are likely to prove the best feature to introduce at a certain stage.

This definition excludes, in the first place, all purely professional courses of study : if the classical languages find a place in these, as *e. g.* Latin in a medical course and Greek in a theological course, it is for their practical usefulness, not for their disciplinary power ; it excludes, in the second place, all the lower grades of common school studies. The great majority of persons leave school at so early an age that their studies must necessarily be such as will be of immediate practical use for them, — the common English branches, which every person must have, and which are well enough adapted to be the mental discipline required in their case. Our consideration is therefore confined to what we may call the High School Course and the College Course : in both of these courses discipline is the main thing, and practical utility a secondary one. The proportion of persons who have at once the opportunity and the taste to pursue such a course is small in any community ; but the experience of our seats of learning shows that to make this "opportunity," money is far from

being the essential ; our most brilliant and successful scholars are often those whose "opportunities" were simply "brains" and "will."

I think that the discussions of the last few years have resulted in two important conclusions in regard to College courses ; and I think I shall be supported in bringing High School courses under the same category. These are, first, that their primary object is discipline, as I have just assumed ; second, that discipline is only the primary, and not the sole object, and must be combined with practical usefulness ; that is to say, the problem is to decide what studies combine the highest degree of mental discipline with some degree at least of practical usefulness in the work of life. It may very well be that there are, for example, some developments of theoretical Mathematics, some complicated applications of the rules of Logic, some details of Natural History, which have no conceivable use except in training the reasoning faculties or exhibiting the principles of classification ; but that their serviceableness in these respects is so great as to warrant their introduction into a course of study. There may very well be a certain proportion of mere mental gymnastics such as these ; but a course made up exclusively, or in any large proportion, of such studies, can find no place in our present schemes of education. Life is too short, and there is too much hard work to be done in it, to allow much of it to be spent in *mere* preparation ; especially since it may be maintained that in general the studies that give us the best training at the same time give us the best tools.

I should not be justified, therefore, in arguing for the introduction of the classical languages into a course which is essentially disciplinary, if it could not be proved that the knowledge of these languages will be serviceable in after life. This point I will not stop to prove, partly because it is not a part of my subject, partly because it has been proved a great many times already. It will be enough to say that there is probably no person who has a fair knowledge of Latin who is not glad of it, and few persons of culture who are devoid of it who would not be glad to have it.

My proposition is, then, that at a certain stage in the High School and College course, the ancient classics form the best means of discipline, and therefore may be pronounced an essen-

tial part of such course. To define further what this stage is, it will be necessary to enter into one or two preliminary inquiries, which will at once show their usefulness as a means of discipline, and at the same time define the point in question,—the age or grade at which they will be found most advantageous.

Leaving out of view the moral and æsthetic nature, education must be mainly directed to the development and training of three faculties,—Observation, Memory, and Reason. This is their natural order: we first observe, then remember, then reflect. The first two are devoted to the acquisition of knowledge, the third to its application. Following out this division, we come again to a proposition which has been generally agreed to by educators, and which, therefore, I will not stop to argue,—that the education of the child ought to follow this natural order; that observation and memory should come first and reasoning afterwards. Not that the three can or should at any time be entirely separated: the weak and immature reasoning powers of the child can receive a healthy exercise and development at every step in the acquisition of facts, and it is in this that the skill of the teacher mainly consists. Those teachers are equally at fault who make the entire instruction of the child a matter purely of memory, and who, on the other hand, task their reasoning powers too severely by lessons above their comprehension. These views are supported by the almost unanimous judgment of experienced writers and thinkers upon education, who are constantly urging the introduction of Natural History into the lower grades of schools, and the relegation of the technicalities of English Grammar to the upper classes, where they belong.

At the age, say of ten years, when the reasoning faculties should begin to receive a moderate exercise on their own account, no longer incidentally, as in the earlier stages of education, probably the best selection of a study that could be made for this purpose is that which has been made in practice,—Mental Arithmetic. Arithmetic and the other branches of mathematics, continued steadily and moderately,—not in the exorbitant degree which is common in our schools,—should form the staple of *intellectual* education for some time after this period.

The lower mathematics, however, develop the reasoning facul-

ties only on one side, — that of exact proof ; for this they are indispensable, and this is one indispensable side of education. But most demonstration is not exact, but only probable, and to train the reasoning faculties in the direction of probable proof another class of studies is required, — that is to say, to train the mind for its principal work, that of judging of evidence when the evidence is conflicting or incomplete, when it is possible to come to only a provisional and uncertain decision, a mathematical training is inadequate ; and as this is the character of most of the labor which the intellect has to perform in life, it follows that the main object of a disciplinary education should be to prepare the student to form judgments upon uncertain and conflicting evidence.

For this end a large number of studies are well adapted, none better than, for example, Geology, Physics, and Political Economy, which are studies of the highest educational order. But these are studies which require as a foundation an amount of previous acquirement, in the way of subsidiary sciences or of observation of facts, which make them come full early enough if they are placed in the Senior year, at the very end of a long course of study. The same thing is true in a degree of scientific and moral subjects as a whole : in proportion as they are highly educational they are difficult and complicated ; in proportion as they are simple and easy they are unsuited to this, the main end of education, for the reason that they appeal chiefly to the eye and memory, rather than the reasoning faculties. The question is, What branch of studies will best fill the gap, — will best develop in the youthful mind the capacity of reasoning upon doubtful and conflicting evidence, — will form the best introduction to those higher sciences, physical and moral, which task the highest powers of the mind.

For this object there is nothing so good as the concrete study of Language ; that is, not the abstractions of grammar, but the practical dealing with words and sentences. The abstract study of Language, whether in the philosophy of grammar or the details of linguistic science, belongs further on, with the higher range of subjects which come in best at a more advanced stage. At the period in question, say from twelve to sixteen years of

age, the work of translating from one language into another — handling its concrete forms — calls into active and healthy exercise all the intellectual powers which need to be exercised at this stage. The memory plays a large part, especially in learning words and forms, but the translating itself is essentially a process of reasoning; the rules of inflection, indeed, may be so largely generalized as to make the learning of paradigms principally a matter of classification, and the study of the derivation and relationship of words takes away its purely mnemonic character from the acquisition of a vocabulary. But when it comes to constructions, the memory has very little to do with it; the pupil is obliged from the very first to work logically; the forms must be determined accurately, and the power of each form must be understood, so that each step in translating shall be, not a haphazard effort to make the words mean something, but an intelligent analysis of the elements present, so as to ascertain what they must and actually do mean.

It is not necessary to enter more minutely into this argument, because this, too, is a point well agreed to by educators. Every disciplinary course of study intended for the classes in question — High School pupils and the lower College classes — is, as a matter of fact, made to consist very largely of the two branches, **Mathematics and Language**. The only point with regard to which there is any difference of opinion, is what languages are best suited to this end. The old system made use of the ancient languages: the present tendency is to institute the modern languages; and I will admit frankly that if there is room but for one language in a course which, while mainly disciplinary, is still intended to finish the pupil's formal education, the claims of some modern tongue could hardly be resisted. Any language can be made highly disciplinary, and every course must have an eye to practical profit as well as to discipline. Our concern is with courses that admit of more than one language.

My proposition is that, apart from practical considerations, the Latin and Greek languages are intrinsically the best for the purposes of discipline; so much the best that, if a course were exclusively disciplinary, there should be no hesitation, and in any course that admits of but two languages, one of these should be one of the two.

The most obvious, although not the weightiest reason, is the very fact of the remoteness and strangeness of the language. It is a mistake, at the age in question, to try to make the work too easy for superficial labor. Real work, but not too much of it, is the right principle. The English language, for example, is as deserving of minute study and as favorable to mental discipline as any; but this study must consist in a considerable degree of abstractions or of recondite points of scholarship, for the reason that the work that first engages the student of a foreign language and which gives him the mental exertion I have described is impossible here. The boy knows what the sentence means, to start with; and if he is told to study its meaning more intently, he is set to a work of subtle and delicate order, unsuited to his rough style of mental labor. For this reason English affords material for only a term or two of severe study adapted to this stage; and what is true of English is true in a degree of the modern languages cognate to English. The pupil finds nearly the same order of words and rules of construction as in his own language, so that he makes use very much more of mere memory and less of the reasoning powers.

This brings us to the second and most important argument,—the character of the languages themselves. The reason that translating from French or German is much more a matter of the memory than from Latin or Greek is that their difficulties consist, in so much greater degree, in idioms rather than constructions,—a natural result of their analytical character, or use of auxiliaries and prepositions instead of inflections. There is of course a difference in this respect. German is far less idiomatic than either French or English, and is for this reason the best adapted for purposes of mental discipline; Greek, on the other hand, is more idiomatic than Latin, and for this reason less adapted for purposes of mental discipline. It is in the language, as in the institutions of Rome, that the pupil comes most completely under the dominion of law. Now, the analysis of idioms is a most useful and interesting practice at a more advanced stage, but for beginners they are a matter of pure memory, while laws of construction belong exclusively to the domain of reason. A regular construction may be readily analyzed by the compara-

tively young pupil, and studied in its principles and application ; and these laws of construction, in their varied uses and complicated relations, present precisely the kind of mental exertion which the pupil needs. In proportion, therefore, as a language is syntactical rather than idiomatic, it is adapted to the purposes of mental discipline ; and while German and Greek possess this character in a high degree, the Latin possesses it in the highest degree. No language, therefore, — no one, that is, of the languages commonly studied, — can compare with Latin for this purpose. It should, at the same time, be remarked that in arguing for a classical language, it does not necessarily follow that it should be Latin. Many persons are in favor of beginning Greek first, and if our text-books were adapted to this order there would be no conclusive objection to this course. If but one ancient language is to be studied, it might very well be that the superiority of Greek literature might outweigh the superior disciplinary advantages of the Latin language.

As our subject is the disciplinary power of the ancient languages, the discussion might end here : their disciplinary value consists essentially in the two features just indicated, — the rigorous application of laws, and the unfamiliar character of the constructions, which enable them to be studied from a more independent and objective point of view. This does not by any means exhaust the benefits of classical study, but the other benefits come under a somewhat different head. The philosophy and institutions of the ancients, for example, indispensable as they are to any student of philosophy or of political science, may, for this purpose, be as well studied through translations and modern commentaries and treatises as from the original writers. There is, however, one large class of benefits which may very properly come in here, although they have reference rather to the æsthetic than the intellectual nature, — that is, the literary excellence of the ancients. The style, although primarily a matter of taste, is largely also dependent upon the reason ; and from this point of view we find the study of the ancient *authors* as serviceable as that of the ancient *languages* is in the point of view already considered. This is an advantage that can be obtained only from the study of the original, not of translations ;

for the very essence of a good translation is that it should not preserve the idioms and stylistic peculiarities of the language from which the translation is made, but should transfer the thoughts and statements of the original into the idioms and forms of expression which belong to the language into which the translation is made.

The qualities of style in which the ancient writers far surpass the moderns are symmetry, precision, and compactness; and these qualities arise chiefly from that same inflectional character which is the source of their syntactical perfection. The genius of the modern languages tempts to a loose, inexact, and irregular style, so much so that if a modern writer makes it his direct aim to reproduce these distinguishing qualities of the classical writers the result is almost sure to be something at once obscure and ungraceful. I can hardly think of any English writer except Lord Bacon, and perhaps Milton and Ralph Waldo Emerson, who has developed a style as elegant and perspicuous and at the same time as terse, exact, and vigorous as that of the ancients. Now, it is of no use for a modern writer to *imitate* these qualities of the ancients; but it is of the greatest use to study them, to be familiar with them, to have the mind imbued with them, and then, unconsciously, when he is simply doing his best to write correct, idiomatic English, some traces perhaps of their fine qualities will find their way to his pen.

The course of study, therefore, which I favor for those who have the opportunity and taste for a thorough disciplinary training is to begin in childhood with those branches that train the eye and exercise the memory,—drawing, coloring, Natural History, the elements of Geometry, simple applications of numbers, stories from history, and the descriptions of foreign countries. All of these, in a greater or less degree, admit of some exercise of the reasoning powers; and as these powers become more vigorous and mature, their exercise should occupy a larger and longer share of time, until at some period, between twelve and fourteen or even later, the pupil may to the best advantage take up the study of the ancient languages, with a view to regular and systematic intellectual discipline.

It has been necessary for me, in presenting my views as to the

place of the ancient languages in an educational scheme, to touch somewhat upon the province of others, so far as to assign their respective places to other studies. All parts of an educational scheme hang so closely together that one cannot be adjusted without reference to the others. No apology therefore is due for thus transgressing. — *From the Wisconsin Teacher.*

**HOW TO TEACH LANGUAGES SO THAT THE PUPILS
SHALL GAIN THE GREATEST AMOUNT OF KNOWLEDGE
IN THE LEAST TIME, WITHOUT OVERWORK.**

PROF. TWEED,

Editor of Massachusetts Teacher :

Dear Sir, — In compliance with your request that I should write some more articles like the "Two Latin Lessons" in November's number of last year, I propose now to write upon several topics, all of which shall involve general principles of teaching *Language*. I do not say *languages*, because the principles of teaching ought to be the same whether I teach the vernacular to a child or whether I teach a modern or a so-called classical language to a child or an adult. In order to prove this, I will state some cases from my own experience, — cases which have been or are still under my instruction. In this paper, in order not to be too lengthy, I will only state the principles upon which I work, and then I shall describe one case, the amount of time given in it to instruction by me and to study by the pupils, and, lastly, the result obtained. In another number I may give the method pursued in this case, and describe another case.

TEACH first *the language* you wish to teach, — not preliminaries, which may be and often are forgotten without serious loss ; not unconnected words, as they are not fit subjects of thought without the connection in which they are used ; not inflection alone, which, when persevered in day after day, week after week, will destroy the tender net-work of the brain ; not rules, as long as there is in the minds of the pupils nothing requiring to be ruled : but teach *the language* in simple, correct, and complete propositions. In presenting these propositions, try to get their meaning from the pupils by well-directed questions. This makes the pupils' minds active, inventive, expressive. If the pupils cannot reasonably be expected to get the meaning, give it promptly yourself, then pronounce your propositions ; so your first lessons will already be reading lessons. In connection with this, teach gradually the inflection of the language, but only as you need it ; derive

simple rules, which govern the language, while you teach it and complicated rules after the language is well mastered. If there is no text-book answering your purpose, make the propositions yourself, and put them on the blackboard; and I should prefer this way of teaching a language, at least in the beginning, to the best text-book that could be made.

In the beginning of reading in a book, always prepare the lesson in the class. Do not let the scholars dig out by themselves, until you have shown them how to dig, where to dig, and how to do it successfully. And here in preparing the lesson you have a grand chance for fixing and expanding the vocabulary of your pupils by giving careful attention to etymology and derivation; for the mind remembers easily by association.

If the language to be studied is not the vernacular of the pupils, compare it continually with the vernacular and let any differences between the two be marked and remembered. Before and while doing all this, ask yourself repeatedly the following questions:—

1. What is absolutely necessary for my pupils to know, and when is it necessary?
2. What is an accomplishment, if it be known?
3. What is useless for my pupils?

And if you set yourself to teach first that which is necessary and then that which is an accomplishment, and if you do this entirely independent of the text-book, you will not have time to teach that which is useless, dry, disagreeable, — as, for instance, in Latin, four fifths of all irregularities in the gender of nouns, columns of verbs without Supine, other columns without Perfect and Supine, etc. etc.

FIRST CASE.

Teaching Latin to a class of beginners who do not know anything of Latin, so as to enable the scholars to translate and read correctly without aid one page per day in the Latin Reader, Roman History, after twenty lessons, — and to finish the Roman History in thirty-three lessons from the beginning of the study of Latin.

This class is studying under me now. They began the Roman

History after eight lessons. Recitations, thirty-five minutes each. Study on the part of the pupils, one and a half to two hours daily.

It is not my intention to claim that so much time for study ought to be exacted from every pupil, but only to show how much can be done in a given time.

For method and details of how this is done, see next number of the "Teacher."

FRANCIS H. KIRMAYER.

CONCERNING HINTS TO CHILDREN.

MONTH by month, scores of earnest young teachers begin their work, eager to help in the improvement of our common schools. These think that a broader range of thought for children should be opened. For example, to Geography they would link accounts of all that concerns the life of each country which the text-book so dryly and briefly describes,—its scenery, its animals, its plants, and its people, with their dress, manners, occupations,—all that can be presented by the media of books, pictures, museums, energetic and patient study, and a tongue eloquent from enthusiastic interest. They would teach Drawing, to cultivate the eye and hand; Botany and Zoölogy, to call into action those observing powers and that sympathy with living beings so easily aroused in childhood, and which, once thoroughly awake, yield such useful pleasure through all later years. They are sure that the collection of specimens in any branch of Natural History would be entered on with eagerness by most children, though tedious to the majority of grown people, and that this would tend to furnish with accurate knowledge and to cultivate some desirable habits of mind. Those who have ever noticed the delight with which children watch any experiments in Natural Philosophy or Chemistry, and their strong desire to try such for themselves, urge well that the phenomena of these sciences may more profitably be shown to them than to adults.

To others, the boundless field of Literature spreads invitingly. The love for the best books that has "grown with the growth and

strengthened with the strength," — will it not have a deeper hold on the man than if grafted late?

And the power to talk and write well must be developed, else the pupils' ideas will be of as little use as an axe in a lame hand.

And the tender conscience, and the keen sense of justice, and the susceptibility of the whole moral nature in childhood, — what earnest teacher dares to leave these out of the account, and shut her eyes to her own awful yet beautiful responsibility?

Giving all these considerations tenfold weight, is the fact that few of the members of our public schools reach any advanced grade. Whatever is to be done with them for life by direct instruction must be done early; with many, in the Primary School only. It is now or never.

And it is right here that perplexity comes. So little time, *yet* so much to do. And so many studies justly claiming attention, while surely the pupils must be "thorough" so far as they go, and in Reading, Writing, and Arithmetic, must go farther than the mere beginnings.

This difficulty confronts each teacher, whether with twenty pupils to look after or sixty; whether these are graded to admit of the minimum of classes or so mixed as to demand almost the maximum; and whether the "committee" and the parents favor or thwart intelligent freedom of action.

Perhaps we may find some balm for this trouble in a thought which we are inclined to overlook; that is, the value of hints to children. You may not have time to give regular lessons on Botany, but if you show a child a lilac leaf, for instance, and ask for other leaves of like form, your desk will be heaped with heart-shaped specimens the next day, and from time to time, long after, you will have other sorts of leaves brought in, with questions and comments about their forms. Any other like hint about plants will be followed up in the same manner. Print or write a few words on the blackboard, and soon many copies will appear, the voluntary work of admiring imitators. After a few dictation lessons in Drawing, I have seen children eight years old, of their own accord, making original designs, and drawing from memory, and copying from carpet or paper or book, gladly giving themselves more practice in a short time than could be exacted from

them in weeks. I remember the spring morning when I first noticed the ants building their houses. My mother showed them to me, with a few words to excite in me intelligent interest in them. I was then perhaps three or four years old, and often afterwards, all through my childhood, I watched those little creatures, and walked carefully on my way to school to avoid spoiling their work. A single fairy story may set a child's fancy rioting in fields of wonder, as all know who have listened to his talk after hearing one.

Perseus had only the *end* of Ariadne's ball of thread, but it brought him out of the labyrinth. We do not think enough of the value of beginnings. Seed in any decent soil will grow: if we can nourish and further its young life, so much the better, but, once sown, something will come of it.

With children, more than with older pupils, their propensity for imitation and their restless activity are to us a great encouragement to lose no opportunity of beginning a good work of any sort, even if we see no chance of ever returning to the same subject. Once show a pleasant path, and eager little feet will seek it again and again. A boy needs to see another spin a top but once for him to try till he too has the knack.

Moreover, children have a great appetite for facts, most of all for facts which eyes can see, or ears can hear, or restless fingers feel. For something real their interest is ever ready; if it be before school, or at noon, or at recess, it is no matter; so that a teacher whose heart is in this work may stimulate thought at many times and places besides class-rooms and class-hours.

If we consider the process of the natural development of a baby's mind, we may see that much of our work in Primary Schools would better be such as might even be called fragmentary, would better involve the gradual presentation of a great number of miscellaneous facts, as the necessary foundation for the classifications, the comparisons, the deductions, and the inventions which belong to riper years.

Let us who deal with children remember how much every one learns in his first three years of life, and how easily he learns it. Do any of us who are "discouraged because of the way" ever think of attempting to teach so much in amount, or ever in our

most Utopian plans include so vast a variety? Though many of the problems of our work may not be solved at present, we ought to accomplish much by striving to follow Nature's lead; and to me this ready seizure of hints by children suggests one mode of useful effort.

JAY.

GIFTS.

NEAR a deep window of a little cottage lies a wee boy sleeping. He is very inexperienced in the ways of this world, for this is his first night in it. His nurse has given him his catnip tea, wrapped him carefully in his flannel blanket, and left him sleeping sweetly. All is quiet save a breeze which rustles through the leaves outside and lightens the rose of its burden of perfume as it passes; in through the window shine the silvery moonbeams. But is that light all of the moon, and that rustle of the breeze? No, for see, the window is thronged with a band of spirits bright!

Who are they? What can they wish? Let us listen and hear what they say of themselves to their carriers, the moonbeams: "Loving messengers are we from our heavenly King; precious powers of mind we bring to this little stranger." See, there is one of them ahead of the rest. What a blithe spirit she is, and how beautiful! She has curling brown hair, and bright blue eyes which see everything about her, a shapely nose, and full red lips. Though her movements are quick and active, they are exceedingly graceful and seem accompanied by a low, musical sound; the air is filled with sweet perfumes shaken from her bright dress of many colors. She moves quickly to the side of the child, smooths a scarcely perceptible wrinkle in the pillow, examines the softly closed eyelids, over his forehead moves her smooth white hand, sprinkles over him fragrant perfumes, in his ear sings sweet music, and lastly stoops and prints a kiss on the rosy lips. Then she turns to greet two others who are approaching, saying gayly, "I have done my task, given my gift. His eyes they shall see, his ears hear, he shall also taste and smell the good things of earth; and with this kiss, I have given him the power to use these fine instruments of sense, — the power by which he can become acquainted with this beautiful world. Spirits, have you a gift like this?"

- Then approaches another, saying, "Though I come not as quickly, yet I too bring a good gift. For what will it profit him though he perceive all the wonders of the world if he forget what he learns? My gift shall be Memory, by which he can recall all the fleeting scenes you open to his wondering eyes, his feelings, and his actions,"

Accompanying Memory is a radiant spirit who resembles her somewhat, but is more slender and delicate. Everything about her has an ethereal, heavenly look. Her eyes are of heaven's own blue, her hair floating golden, her dress of the sheerest white gossamer. Have you not seen her? She is the patron saint of painters and sculptors, for she helps them to form their ideals of beauty, and in doing this she gives them glimpses of her own perfect self, which they copy unwittingly. On her pure forehead and in her soulful eyes is seen the impress of perfect character, which is the Christian's ideal. She says, "Fair child, I will give you the inspiration of my spirit, Imagination, which, if you use well, will make you useful among men like the world's artists, poets, inventors. In whatever occupation you engage, it can help you to be a good worker. For yourself, it can make you happy when others are sad; it can create a new world of beauty around you; it can help you to form a manlike character."

Lastly there comes forward a dark, tall, thoughtful spirit. "I, too, bring a gift," she says, "and it is a good gift. But let none of us think, sisters, that hers is the best gift, of the most importance. The mind of the child is like his body. Every part is essential to the rest, and on the well-being of each depends that of the whole. My gift is Reason, Judgment. In his search for truth, it can carry him farther than Perception and more surely than Imagination."

As the spirits gather around the child to take a farewell look, a voice is heard saying, "These angels have each bestowed upon this earth-born child a God-sent gift each, one of which she herself is a perfect type. But all they can give is a seed, a beginning. The development of this beginning into a mind which shall be of use in the world will depend upon himself and his earthly instructors."

VERMONT DEPARTMENT.

REV. H. T. FULLER AND J. C. W. COXE, EDITORS.

DANGERS OF SPECIALISMS IN TEACHING.

A CERTAIN class of teachers, especially assistants in large schools, are sought with reference to their qualifications for particular kinds of work. The knowledge of this fact leads many who are preparing to teach to strain every nerve to excel in single departments of science, and many experienced teachers are in the habit of pursuing one or two lines of reading and study to the exclusion of all others. There is advantage in this specialism, and yet danger.

The danger is, first, lest personal culture of a general sort should be neglected, and the teacher become angular, eccentric, and even careless of any attainment exterior to his sphere of labor or favorite channel of investigation. Sometimes lack of refinement or even common courtesy is manifest; sometimes there is utter ignorance of current events, or of the methods of transacting ordinary business. Such a one falls into narrow and unjust ways of thinking; and since thinking makes the man, the character is incomplete, and students have presented to them anything but a model worthy of imitation. Of one like this, it could not be said, as it was recently remarked of a deceased teacher, "He was eminent for his wisdom." There is need in our schools of enthusiastic naturalists, keenly critical mathematicians, thorough linguists, patient and careful instructors of methods, and efficient disciplinarians, yet not less need of symmetrically developed, well-balanced men and women.

A second danger is that specialists will after all give very imperfect instruction. We teach most ourselves; scholars study their teachers more thoroughly than aught else. The latter are the models, if not the ideals, of the former. And, further, the entire guidance of the teacher will tend to be narrow even where the attention is largely secured to text-book or topic. Scholars are not infrequently drilled on a single point till they see clearly

nothing else, and both interest and patience are exhausted. Great intensity may become equivalent to great superficiality.

A knife-blade is the same, whether it is seen edgewise or flat-wise. Five hundred cubic yards of soil are worth much more than the same quantity of earth from a shaft. Specialists are likely to miss the true end of education. They may give wise training for technical work, but their methods are often poorly adapted to the needs of the masses of our scholars; they make botanists or chemists or engineers, but too frequently fail to exert strong influence in moulding character after the highest ideals.

H. T. F.

It is singular that the Grangers, who allege that they swear themselves aloof from politics, promise, in at least one State, to make quite a stir in educational matters. The *point d'appui* is the Agricultural College funds. These were by the Vermont Legislature voted to the University at Burlington, which then sandwiched together the Agricultural and Scientific departments, making, however, at the same time, a separation between the studies of a portion of these two courses. Now it is averred that there is not a single student in the Agricultural course, and that this fact is significant of the utter inutility of the college to the agricultural interests of the State. Neither will the students be farmers nor the farmers students. The "Vermont Farmer," the semi-official organ of the Grangers, makes a demand for the restitution of these funds to the original purpose for which they were granted by Congress, and even threatens judicial proceedings to this end. Cannot the University reclaim a portion of Lake Champlain for use as a model farm? A certain editor might, perhaps, be induced to stock a part of it with fruit.

WHATEVER henceforth may be sought in the management of the educational interests of the State, let there be no repetition of the incorrigible blunders of the past. School lands voted to institutions of other States, the establishment of three colleges

instead of one, and of three normal schools in place of one, the lack of system and uniformity in many features of common school education, are some of the way-marks of past travel, of which, like schoolboys who have whittled desks till they are terribly unsightly, we ought to be greatly ashamed. Two causes are at the root of these mistakes. First, the predominance of sectional and local interests. Nature has, in some respects at least, been a poor foster-mother to us. She gives us mountains that rend us asunder, and rivers and valleys that lead us apart, towards every point of the compass; the soil washes into other States, and nothing but thin mist drifting over our heads comes back in return. Our railroads were built for the use and delight of Portland, Boston, Montreal, and Chicago; hence the tracks, and so the business interests, diverge within and converge without our borders. The horizon of our hill-environed homes has been too much the horizon of our wisdom and sagacity. A Westerner looks forty miles ahead, where an average Vermonter looks forty rods, — except when he is about to emigrate. Whatever will build up Pintville, with its blacksmith's shop, grist-mill, and six dwellings, is the motor-power and motto of the verdant legislator who boards a while, once in two years, at Montpelier, or votes for prudential committee in district meetings.

A second cause of these mistakes is found in the intense individualism which characterizes our people. One man's opinion, forsooth, on any subject whatever, is just as good as another's. An opinion once formed or a course of action once chosen is adhered to with all the pertinacity of the clutch of a closing bivalve. Hence the great difficulty of correcting mistakes or of substituting any new regime for an old one. There is abundant confession of faults, but too little application of remedies. And yet, in spite of unatoned errors, against adverse natural forces, and against the conservatism and even obstinacy of many of the people, there is progress in the cause of education in Vermont. Secondary education is receiving a strong impulse in the establishment of two academies which promise to stand in the foremost rank of such schools. Shall there be a corresponding advance along the whole line? Long strides forward ought to be taken in other directions; bickerings and local jealousies

should be banished, and all heads and hands united in consultation and work for the common weal.

COMPARATIVELY few people in Vermont realize either how much or how efficient work is being done by the Secretary of the Board of Education. The record of Teachers' Institutes, prepared at our solicitation by one of the lady assistants, gives some idea of the varied nature of his labors, occupying three months' time, in that direction. Three weeks, prior to the spring and autumn examinations of common school teachers, are given to meeting the superintendents by counties to arrange for these examinations, — all questions for which, as far as they are written, are prepared under his direction. The rules for the spring examinations of 1874 require written answers to the questions in Arithmetic, Grammar, Geography, and Orthography, an average of sixty-five per cent of which must be correct, and no candidate is allowed a certificate who falls below fifty per cent in any study. For private examinations, a standard of seventy-five per cent is required. We believe that no other State has a better system of examinations than Vermont; it is practically uniform throughout the State, except that the required per cent of correct answers varies in one or two counties.

We most heartily, in the main, concur with the recommendations made by Dr. French in his Institute lectures. But a more imperative need — which he has also faithfully represented — is that of a direct State tax for support of schools. The present inequality of local taxation is abominably unjust. On this and some of the other topics we hope to present carefully prepared articles hereafter.

The forthcoming biennial report of the Board of Education and its secretary promises to be unusually valuable, especially in its statistics; and we hope it will most earnestly plead for greater uniformity in taxation, and for such an advanced course, in at least one of our normal schools, as will sufficiently qualify teachers to give most thorough instruction in the higher English branches in our graded schools and academies.

The new text-books, prescribed by the Board of Education for

use since November last, are, in spite of all opposition of rival publishers and political and personal jealousies, gradually working their way into favor. We might except the Readers, perhaps, but the teachers approve the rest wherever the trial of them has been thorough.

VERMONT TEACHERS' INSTITUTES.

DURING the months of December, January, and February, Teachers' Institutes were held in twelve of the fourteen counties of the State, beginning at East Dorset, Bennington Co.

The Bennington County Institute was pleasantly opened on the evening of Dec. 8 by an address from Prof. Higley, of Middlebury College. There were afterward evening addresses from Prof. Shaw, of Manchester, Prof. Gould, of Bennington, A. B. Miller, President of Waynesburgh College, Pa., and Dr. French, Secretary of the Board of Education.

The attendance of the teachers was large and their enthusiasm noticeable. The citizens manifested their interest by coming out in goodly numbers to the day as well as the evening sessions.

Secretary French was assisted by Prof. Miller, Miss Guernsey, of the Randolph Normal School, and Mrs. O. H. Kile.

The Institutes at Bellows Falls, Windham Co., Post Mills, Orange Co., and Waitsfield, Washington Co., followed in quick succession. At Bellows Falls, Miss Gilson of St. Alban's took the place of Miss Guernsey, and at Waitsfield, Mr. Ward of Westminster supplied the place Mr. Miller had left vacant.

The work was very practical, giving tried and approved methods of teaching the studies of our common schools. Miss Gilson, with classes of children taken from the audience, illustrated the manner in which the rudiments of vocal music may be taught. Mr. Ward, who has been Superintendent of Schools in Northampton, Mass., illustrated some of the kindergarten methods of teaching young children. Frequent singing, gymnastic exercises, and a query-box added variety and interest to the sessions.

At Waitsfield, Secretary French gave an interesting address upon Entomology. The audience-rooms were generally well

filled throughout the day and crowded during the evening sessions; the interest sometimes amounted to enthusiasm.

The next Institute was held at Enosburgh Falls, Franklin Co., the third week in January. Over one hundred teachers were enrolled. Upon the last evening, Prof. Perkins, of the Vermont University, delivered an address upon Theories of Science, that elicited praise alike from theologians and scientists.

At Springfield, Windsor Co., Mr. Conant, Principal of the Randolph Normal School, assisted in the Institute; and gave an address upon the subject of Normal Schools in Vermont.

At North Hero, Grand Isle Co., but few teachers and not the usual numbers of citizens were present. By reason of illness two of the instructors were absent, and Secretary French did most of the work, giving methods of teaching and hints useful to parents as well as teachers, in the day-time, talking to the citizens on matters pertaining to their schools during the evening.

At Bridport, Addison Co., Feb. 5, 6, and 7, there was a large gathering, nearly one hundred teachers, and citizens enough to fill the commodious church. Prof. Webber, of Middlebury College, read an interesting and valuable paper on the Mission of the Teacher; Prof. Higley read one also interesting and valuable upon the Benefits of Classical Education; Prof. Perkins delivered the address upon Theories of Science; and Secretary French spoke on the great problem of the age,—The Boy. The discussion of methods of school management and the lesson on the use of the globe elicited much interest. The hospitality of the citizens was noticeable, as many strangers were not only entertained, but conveyed to and from the depot, a distance of eight miles, free of charge.

At Newport, Orleans Co., Feb. 9, 10, and 11, a large and enthusiastic assembly of teachers and citizens listened to what the Secretary and his assistants had to tell them about educational matters in general and special studies in particular. The Secretary, Rev. Mr. Fuller of St. Johnsbury, and Dr. Cutting of Lunenburg, State Geologist, filled the evenings to the satisfaction of large audiences.

At Island Pond, the attendance was smaller, but a good degree of interest was manifested. Mr. Ward spoke the first evening of

the part that tidiness and manners have to play in the training of young children. Dr. Cutting gave an illustrated lecture upon the Wonders of the Microscope; and upon Friday evening, Secretary French addressed the people.

At Peacham, Caledonia Co., Miss Guernsey was again on the list of instructors, and Miss Gilson was absent. Rev. H. T. Fuller, Secretary French, and Dr. Cutting cared for the evenings. The audience increased steadily from the beginning, until the Academy Hall became too "strait" for them. Dr. Cutting's address upon the Atmosphere was popular in its character, and at its close a lively hour was spent in asking questions, which the speaker answered readily and with great good humor.

At Johnson, Lamoille Co., Miss Lowry, of the Johnson Normal School, was added to the list of instructors. Secretary French, Dr. Cutting, and Prof. Perkins delivered addresses.

The attendance was good, and considerable interest was manifested throughout.

The Institute closed with a sociable at the Academy Hall.

The evening addresses have been a noticeable feature of these Institutes. The practical character of the topics discussed, the thoughtful and Christian treatment these topics have received at the hands of the teachers, merit more than a passing notice.

The Secretary of the Board has conducted all the Institutes. During the evening sessions he has taken pains to present to the people the facts with regard to the present condition of our schools, which should be interesting to every citizen of the State. He has also shown the need of legislation which shall secure to us the following benefits: 1. The town system of schools. 2. A course of study for all the public schools of the State. 3. Intermediate supervision; and 4. Evening schools.

F. K. K.

GENERAL INTELLIGENCE.

SPECIAL NOTICE.—Contributions for the Vermont Department of the "Teacher" for June should be sent to J. C. W. Coxe, Montpelier, not later than May 12. Items of intelligence are especially solicited.

NORTHFIELD expects at the end of this year to lose the Principal of its High School, Mr. A. R. Savage, who is already admitted to the bar, and will next year begin the practice of law.

WELLS RIVER is building a fine public school-house under the supervision of Mr. Q. Packard, of St. Johnsbury, the architect. We commend Mr. Packard to the attention of building committees and others who desire tasteful plans for school buildings.

STATE NORMAL SCHOOL AT RANDOLPH. — The entering classes in both courses are larger than ever before, numbering forty-six in the First course and seventeen in the Second. The graduating class in the First course numbers thirty-six; in the Second, six. A valuable herbarium, consisting of a hundred sheets of finely-arranged specimens, has recently been presented to the school by Mr. A. P. Morgan of Pomfret, the author of "Wood's Plant Record." The formation of herbariums, together with the drawing of forms, constitutes an important feature of the instruction in Botany in the school.

ST. JOHNSBURY Union School District, at its last annual meeting, voted to request the Prudential Committee to consider the expediency of suspending the High School and of sending the scholars who have passed the Grammar School grade to the Academy. Two reasons are urged in favor of this change: first, the superior attractions and advantages of the Academy, which draw a considerable portion of the students from the High School and make it difficult to keep up any *corps d'esprit* in the latter; and, secondly, the crowded condition of the lower departments, rendering essential some provision for more room. A new High School building must be erected or an addition be made to the present structure, unless an arrangement of the kind proposed is adopted.

SAXTON'S RIVER. — A meeting of the trustees of the Vermont Academy was held at this place Monday, March 30. An agent was empowered to purchase the land decided upon for the site of the school, and a committee chosen to procure plans for the proposed buildings, to be submitted to the action of the Board. Various other committees were also chosen to take into consideration the selection of teachers, the course of study to be pursued, etc. The first \$100,000 has been subscribed and nearly \$10,000 towards the next \$100,000, of which \$6,000 was raised at the meeting on Monday. As soon as the total subscription reaches \$125,000, the buildings will be commenced, and this event would seem near at hand. It will be remembered that this is a project of the Baptists of Vermont, and although owned and controlled by that denomination, it does not propose to be a sectarian school, but to take rank as one of the best institutions of its kind in the State, and thus command the patronage of all classes of citizens. We learn that since the meeting, the land for the site has been purchased, and the success of the project is doubtless now assured beyond question. The officers of the Board are: Judge Wm. M. Pingry, President; Rev. M. A. Wilcox, Secretary; Mial Davis, Treasurer; Lawrence Barnes, J. J. Estey, and C. Hibbard, Executive Committee.

RESIDENT EDITOR'S DEPARTMENT.

WHEN the Sultan was thanking the philanthropist, Howard, for saving the lives of so many of his soldiers by his medical skill, and asked him to name a reward adequate to his services, Howard is reported to have answered, "Leave to preserve more of thy subjects still."

In seeking the most appropriate "memorial" of Agassiz, his friends and the friends of education seem to have taken for granted that his answer would have been similar to that of Howard, — "The means of doing more for science, and more to raise the dignity of the profession" for which he has done so much, and of which he was, perhaps, the greatest ornament.

We hope the memorial service on the twenty-eighth of May, 1874, referred to in the circular which we append, will afford substantial evidence that the teachers and pupils of Massachusetts appreciate to some extent what Agassiz has done for them.

THE AGASSIZ MEMORIAL.

TEACHERS' AND PUPILS' FUND.

BOSTON, March 10, 1874.

LOUIS AGASSIZ, Teacher. This was the heading of his simple will, this was his chosen title; and it is well known, throughout this country and in other lands, how much he has done to raise the dignity of the profession and to improve its methods. His friends, the friends of education, propose to raise a memorial to him, by placing upon a strong and enduring basis the work to which he devoted his life, the Museum of Comparative Zoölogy, which is at once a collection of natural objects, rivalling the most celebrated collections of the Old World, and a school open to all the teachers of the land.

It is proposed that the teachers and pupils of the whole country take part in this memorial, and that on the birthday of Agassiz, the twenty-eighth day of May, 1874, they shall each contribute something, however small, to the TEACHERS' AND PUPILS' MEMORIAL FUND, in honor of LOUIS AGASSIZ; the fund to be kept separate, and the income to be applied to the expenses of the Museum.

JOHN EATON, *Commissioner of Education*, Washington, D. C.

JOSEPH HENRY, *Sec. Smithsonian Institution*, Washington, D. C.

JOSEPH WHITE, *Sec. Board of Education of Massachusetts*, Boston.

W. T. HARRIS, *Supt. Public Schools*, St. Louis, Mo.

EDWARD J. LOWELL, Boston.

JOHN S. BLATCHFORD, Boston.

JAS. M. BARNARD, *Treas. Teachers' and Pupils' Fund*, Boston.

All communications and remittances for the Teachers' and Pupils' Fund of the "Agassiz Memorial" may be sent to the Treasurer, Jas. M. Barnard, Room 4, No. 13 Exchange Street, Boston.

ANOTHER eminent teacher has passed away. After the death of Agassiz, it would have been difficult to name a greater ornament to our profession than Prof. Alpheus Crosby. For extent and accuracy of scholarship, for simplicity, purity, and integrity of character, and as a model in almost every department of teaching, he stood in the very first rank.

It is by such men as Agassiz and Crosby that the profession has been magnified and made honorable; every teacher, in however humble a position, occupies a higher place in the community for what they have done. It is fitting, then, that we should honor their memory and emulate their virtues. We may not be able to fill the places made vacant by their death, but we may all be better teachers and truer men and women that they have lived.

We hope some one competent to do it will prepare an article for the "Teacher" which will be a fitting memorial of the man and the teacher.

THE article entitled "Segmentation" in our March and April numbers should have been credited to Prof. C. O. Thompson, and that on "Objective Teaching" to Rev. H. F. Harrington.

THE STUDY OF THE OLD ENGLISH POETS.

It is such a pity that there is so little real study of the old English poets in our public schools, or indeed in any schools or among any large class of people! So much time is spent in the study of Greek and Latin or French and German, that there is none left for the study of the best works in our own mother-tongue. But is it not foolish to push aside the good that lies close under our hand for that which we can only reach, at best, by years of patient toil, and which the majority will be pretty sure to miss entirely? Can the words of Homer or Virgil, Goethe or Corneille, be as strong intellectual food as the ideas of Chaucer and Spenser, Shakespeare and Milton? And yet how many more young people in the schools have worked their toilsome way through the "*Æneid*" than have read the "*Faery Queene*" or "*Paradise Lost*." Even if they could overcome the difficulties of the language enough to get into the spirit of Virgil so that he became real to them and his writings helped to form their minds and characters, it might be questioned whether it were not better to train them first in the spirit of their own English race. And how many of those who read Virgil ever do get into the spirit of it, or are inspired by it to love Latin literature? Is it not mere words to most of them, and do not the majority of boys and girls close their

Latin books forever when they leave school? They must get some good from the study of any ancient or modern language, they may get a great deal, for I have firm faith in the languages as means of education; but do they, can they, get enough to pay for the time spent on that *instead* of on their own, which they are to use all their lives, and which has a literature rich in power and beauty, which will be a source of life-long help and pleasure to them if they learn to appreciate and love it? It seems to me that the study of our own language and literature should rank first in importance and claim the largest share of time, and that the others should do their good work in their subordinate places.

The reason often given for not reading the old English poets, especially Chaucer, is their obsolete language. That excuse can have no weight in the presence of years spent on Latin, and, moreover, it has no great weight in itself. A few hours of study in the Introduction and Notes to R. Morris's edition of "The Prologue and Knight's Tale," Clarendon Press Series, will enable any one to read the old English understandingly, and only practice is necessary to read it enjoyably. I speak positively, because I read it with a class of girls seventeen or eighteen years old, and found from experience how weak the excuse was, and found, indeed, what a charm there was in the antique language, how it often added piquancy and zest to some witty saying of Chaucer, or threw a dreamy beauty and vague glory over the poems of Spenser, bringing us again the speechless, credulous wonder of childhood, when the sense of words was large and dim, and the world of imagination was nearer than the world of fact. As one of the girls said about it, "Spenser speaks not in the language of his time, but in the language used when people heard and almost believed the stories of knights and fairies told around the fireside. This antique language gives the final tint to Spenser's picture of fairy-land; it is the bridge Bifröst by which we ascend to the unreal world."

And I found, too, how much real delight the girls had in the old poet. He is so fresh and natural and hearty that you can no more resist him than you can resist the happy influence of a bright June day. You may say of his verse as he does exultantly of the May-time, —

"Oh the litel birddēs how they syngē !
Oh the fresshē flourēs how they sprynge !"

And in these days of magazine literature, highly-wrought stories, whose plot is labyrinthine and whose language is "full of foaming phrases that go off with a pop like a champagne cork," or as flat as the champagne that has lost its sparkle, it is a rest and refreshment to follow his tales, which, as Lowell says, "run on like one of our inland rivers, sometimes hastening a little and turning upon themselves in eddies that dimple without retarding the current; sometimes loitering smoothly, while here and there a quiet thought, a tender feeling, a pleasant image, a golden-hearted verse, opens quietly as a water-lily, to float on the surface without breaking it into a ripple."

And the same class read Spenser with even more delight, in spite of many very emphatic statements before we began that it would be impossible to like him as well as Chaucer, and prolonged efforts on the part of some to make the statements good.

It seems to me impossible to read the *Faerie Queene* through without getting into its charmed atmosphere. It is so stately and graceful in form and movement, so rich in coloring, so exquisite in adornment, so flooded with "a glory that never was on land or sea," that you realize at last what the Spirit of Poetry herself might write.

To show how genuine was the girls' admiration, and how vital the book was to them, I copy some extracts from their essays, written after they had finished or nearly finished the *Faerie Queene*, and before they had read any criticisms by others:—

"The first thing that strikes us in the '*Faerie Queene*' is the metre,—the poet's natural form, for he invented it. It has a peculiar fascination; it does not excite, but we cannot get away from it; like the fascination of the waves on the shore, we are never ready to go, but must see one more.

"The next is the succession of beautiful pictures."

All the girls spoke of these beautiful pictures, which have won for Spenser, in addition to his honored title of the "Poet's poet," the no less glorious one of the "Painter's poet." The poem opens with one that at once claims our interest, "A gentle knight pricking on the plaine, Ycladd in mightie armes and silver shield," with "a lovely ladie" riding by his side "upon a lowly asse more white than snow," and followed by her "lasie dwarfe" "that farr behind did lag." Then follows the hideous picture of Error in her Den and of the Knight's battle with her. All through the poem there are scattered these fearful pictures that stand out "as proofs of power" in our gentle Spenser "like bas-reliefs." The strange procession of the Seven Deadly Sins, the darksome Cave of seducing Despayre, Malbecco leaping from "the rocky hill, over the sea suspended dreadfully," and finding with horror that he cannot kill himself, are among the most striking. And what could be more lovely than the picture of Una when,—

"One day, nigh wearie of the yrksome way,
From her unhastie beast she did alight;
And on the grasse her dainty limbs did lay
In secrete shadow, far from all mens sight;
From her fayre head her fillet she undight,
And layd her stole aside: Her angels face,
As the great eye of heaven, shyned bright,
And made a sunshine in a shady place;
Did never mortale eye behold such heavenly grace."

Or more touching than the effect of her beauty upon a "ramping lyon" that, "greedy after blood," rushed suddenly from the thickest wood, and seeing her, stopped amazed "forgot his furious forse," and "instead thereof, kist her wearie feet and lickt her lilly hands."

The variety of these pictures is wonderful; and stately Belphebe repelling the "vaine Braggadochio," and fearful Florimel, with her face "as clear

as christall stone" and "faire yellow locks," flying from the "griesly foster," are equally understood by the poet. So the House of Morpheus, where

"Careless Quiet lyes
Wrapt in eternall silence, farre from enemies,"

Has its contrast in the Cave of Mammon, before whose door

"Sat self-consuming Care,
Day and night keeping wary watch and ward
For feare lest Force or Fraud should unaware
Break in, and spoil the treasure there in gard."

And there are many, many more : the Idle Lake ; the Bowre of Bliss ; the arras in the House of Busyrane "woven of gold and silke" and figuring a whole mythology ; the procession of the Sea-gods at the wedding of the Thames and the Medway ; and especially the glorious vision of Arthur, with "his hautie helmet horrid all with gold," with its dragon crest, from whose mouth "flamed bright sparckles fiery redd, that suddeine horroure to fainte heartes did shew," and his closely-covered shield that was "all of diamond, perfect, pure, and cleene" ; and those where the fair and noble Britomart appears, for, as one of the girls says, "Fair Britomart circles about herself some of the most fascinating of these pictures. Nothing can exceed in beauty her meeting with Artegall, or the descriptions of her adventures in delivering Amoret. Of all the scenes in the 'Faery Queene,' I give the preference to the one where Britomart descends fearlessly into the dark dungeon where Busyrane is torturing the helpless Amoret. We see him fearfully revoking his charms, while golden-haired Britomart stands over him with her flashing sword, undismayed by the thunder and lightning and shaking of the castle." The variety of the pictures is wonderful, and (I quote here entirely from essays by the class) "all these pictures are really the contrast between truth and falsehood in all their forms."

"The first book is the most complete, and contains the true and pure ideal of chivalry ; but as human characters, the personages do not exactly please us, the human is a little subordinated to the allegory, and we do not feel satisfied with Una and the Red Crosse until we know what they represent."

The same thought is hinted at here : "Of all the female characters, Britomart stands first. The idea of her going round dressed in armor, cutting off heads and killing, is repulsive ; but after all it is her enchanted spear — her own purity — that protects her, and when she takes off the heavy armor, and —

' Her golden locks that were in trammels gay
Upbouden, did themselves adoune display,
And raught unto her heels ; like sunny beams
That in a cloud their light did long time stay,'

She is as beautiful and womanly as could be wished."

Another girl says : "The allegory is plain though not prominent throughout ; and although one seldom stops to trace it minutely, the fact that the physical struggles of the men and women are only the robes of moral con-

licts and victories is never absent from the reader's mind." And this brings me to a point I desire to speak of, — the importance of the allegory in the "*Faerie Queene*." One constantly meets with such expressions as this in reading about Spenser: "I need not say the allegory is to be forgotten." (Sir James Mackintosh.) Perhaps Hazlitt's constantly quoted passage is as representative as any: —

"Some people will say they cannot read the *Faery Queene* on account of the allegory. They are afraid of the allegory, as if it would bite them; they look at it as a child looks at a painted dragon, and think it will strangle them in its shining folds. This is very idle. If they do not meddle with the allegory, the allegory will not meddle with them. Without minding it at all, the whole is as plain as a pike-staff." But I cannot quite believe that. It seems to me that the inner meaning was constantly in Spenser's mind, and that we cannot neglect it without losing the heart of the poem. We shall have left a fascinating story full of lovely pictures and touched everywhere with the golden light of poetry, but all will be extravagant and improbable. The Red-Crosse Knight must represent a brave soul starting forth to battle in the cause of Truth (*Una*), being led astray by Falsehood (*Duessa*), almost dying of despair (in the Cave of Despayre), repenting and being helped by Faith, Hope, Love, and Patience, finally overcoming the Dragon-Evil, and being united to Truth once more; or he becomes an absurd man, trying to overcome an impossible creature with a tail three furlongs in length and a body in proportion, and, more absurdly, succeeding. But the allegory is plain enough; we are told it all in the very names of the characters and the heading of the canto, "*The Legend of the Knight of the Red Crosse, or of Holinesse*."

If to this general spiritual allegory we add the historical, and let the Red Crosse represent England in the sixteenth century, *Una* the Protestant, *Duessa* the Roman Church, then we have added to our knowledge of the times, and gone deeper into the depths of Spenser's mind, only to admire the power that could carry on so many trains of thought consistently and never let them interfere with the truest poetry, that seems to flow easily along, guided only by the natural course of the story or the dictates of the freest fancy. We may carry the allegory still further, and question whether *Duessa* stood also for Mary Queen of Scots, *Belphebe* for Elizabeth, *Timias* for Walter Raleigh, Arthur himself for Robert Dudley, Earl of Leicester, or perhaps — let us hope so — for Philip Sydney; but these are side issues, interesting but not absolutely necessary; the main allegory is always necessary. If we let *Britomart* represent only a woman, disguised as a knight, seeking her unknown ideal lover amid many dangers, and everywhere, as a knight, righting wrongs and helping the distressed, though she may seem to us strong and tender and exquisitely fair, the idea has not all the dignity of Martial Britain seeking the ideal Justice, whose image she holds ever in her heart, true always to her aim, true always to herself.

The third and fourth books owe their glory to *Britomart*, the most interesting character in the whole poem; fair, flying *Florimel* and faithful *Amoret* only increase our admiration for her more complete character. I have

left Arthur till the last, but after all he is the central figure. The Arthur of Spenser and of Tennyson have the same meaning; they are the embodiment of Truth; and the way the two poets have treated them show us the difference in their views of the world. Tennyson's Arthur is true and noble, but alas! the world is not ready for him; he tries in vain to raise men to his standard: at last he dies broken-hearted, promising, however, to return again: some day the world may receive truth. Spenser's Arthur is truth ever-conquering, and, in spite of evil, the strongest power in the world."

Speaking of Spenser's love of nature, one girl says: "Spenser did not enjoy Nature as Chaucer did. His woods were peopled with nymphs, every spring and stream was the abode of fairy or demon, every cloud the towering castle or trailing robe of some beautiful being of his imagination."

And another: "Spenser's appreciation of Nature seems broader, yet I miss in him those simple outbursts in praise of Nature that so charm one in Chaucer."

And yet another: "In this fairy-land of the poet we seldom see the rude forces of Nature: Phœbus lights the world with his joyous face, Neptune's mighty presence stills the raging waters, and at times Jupiter thunders through the heavens."

Of Spenser as a poet, one says: "Spenser's mind was cosmopolitan; any form in which beauty had been expressed was natural to him; Greek gods and Celtic knights walk with equal grace in his Fairy-land. Of all literatures, Spenser seems to have delighted most in mythology,—in those great poems which all nations write in their childhood, and whose melody is ever heard in the songs of their greatest children. . . . We try to compare Spenser with some other poet, in order better to understand his position; but we cannot get hold of him. He is like his old man with the net: we take him up as a precious stone, and seek to compare him with other jewels; he turns into a bird and flies singing up to heaven. . . . He is a philosopher, and the basis of his philosophy is the beauty of truth. . . . Spenser is not the greatest of poets, for with all his power he never reaches our sympathies; he appeals to the intellect rather than to the heart. We admire his characters, but feel as if they lived in a different world from ours, governed by laws of its own. If a fair damsel is in distress, we have no impulse to help,—the poet will surely provide a brave knight for every distressed damsel. Spenser's world is not like ours. Here things end sadly, and many a wrong is never righted, and we must hope for a future to right all things: in Spenser's world all things are done justly, punishment and reward succeed directly wrong and right doing. . . . In Spenser the trials of life are glorious battles, and victory is sure to valiant souls. His heroes have no doubt mixed with their faith; they see plainly into the future and not 'as through a glass darkly.' For this reason the poet never rises to the height of human joy or reaches the depth of human sorrow. . . . If not the greatest poet, Spenser stands high in the second rank; and we can say of him as of Columbus, He has given us a new world."

No one will expect from school-girls the depth of thought or elegance of

expression of older writers. I have quoted the passages as they were first written, with the exception of two, which the pupil herself altered so that her idea might be expressed more clearly. These essays seemed to me to show that the gentle poet had found his way into their minds, and warmed and brightened them, as I believe he always will those who will take a little pains to know him.

We read five books of the *Faerie Queene*, the *Prothalamion* and *Epithalamion*, *Hymns to Love and Beauty*, parts of *Colin Clout* and *Mother Hubbard's Tale*; and then, anxious lest we had spent too much time on Spenser when there was so much else to read, I stopped and let them sum up their impressions, meaning then to go on to something else; but after they had faithfully done their best at the very difficult task of writing an essay about Spenser, they begged to read the sixth book in class, — and who could have refused? Perhaps this is a stronger proof than the essays of the genuineness of their interest.

The *Faerie Queene* is an almost inexhaustible store-house of beauty, and one from which all ages can draw; the stories as stories would fascinate the youngest child, they are marvellous fairy tales, and the exquisite poetry has touched the latent imagination of many a youthful poet with a touch of fire and been the comfort of old age. Pope says, "I read the *Faerie Queene* when I was about twelve, with infinite delight, and I think it gave me as much when I read it over about a year ago." And as to his moral influence, hear Keble, whose own pure use of his art makes him a fit judge: "The *Faerie Queene* is a continued, deliberate endeavor to enlist the restless intellect and chivalrous feeling of an inquiring and romantic age on the side of goodness and faith, purity and justice. . . . To Spenser, therefore, on the whole, the English reader must resort as being pre-eminently the sacred poet of his country."

Is it not truly a pity that he should be a mere name to so many?

Shakespeare is much more widely read than Chaucer and Spenser, and the increasing number of editions of his works and of clubs bearing his name show that he is becoming more and more a vital power among the people; but when we think that the civilized world acknowledges him as one of its four greatest poets, perhaps its very greatest, how far behind his desert comes our admiration, and how far behind our wonder comes our knowledge! Are we worthy of so great a gift, when we take so little pains to use it? It seems to me that every school or system of schools in an English-speaking country should make Shakespeare a special study, should take the time for that as one of its most important studies.

I would not be thought to undervalue the literature of other nations: of Germany, who could produce a Goethe and Schiller; of Italy, who could produce a Dante, that "voice of ten silent centuries" singing "its mystic, unfathomable song"; certainly not of Greece, with its Homer and Sophocles and Plato; but I think we must come to them when our minds have grown strong by the study of our own master-spirits, speaking plainly to us in our own mother-tongue. How can we appreciate the more remote, until we have learned to appreciate what is close to us? And if we neglect our

homes to travel abroad, may we not find—as so many do—that we have “sold our own lands” merely “to see other men’s,” and must come home a beggar at last?

E. A. C.

A BETTER KNOWLEDGE OF ARITHMETIC IN LESS TIME.

THE demand for more arithmetic in less time is increasing, and becoming more urgent, as new subjects of study are multiplied, the vacations lengthened, and the daily sessions shortened. Some labor-saving process must be invented, or teachers will be found wanting in the duties required of them.

To this end, we would direct attention to some of the numerous eccentricities of the text-books, as being partial causes of the present unsatisfactory progress in this important branch of school study.

Through most studies there is a logical line running, on which ideas, by association, may flash with lightning speed, and upon which the memory may string the connected thoughts, and recall them at leisure. But let any one attempt to trace such a line through any of the school arithmetics, and, so far as he can find one, it will more resemble the forked lightning, in its zigzag course.

Though a subject may be presented in a lucid manner and in logical order, it is often obscured by an abstract rule that is not in accordance with the illustration; but, as is supposed, in a more convenient form for use. For example: in the latest book that has come into my hands, I find, as usual, the two methods of subtraction. The author says, “The former is, perhaps, the more philosophical, but the latter is more convenient;” and gives his rule for the unphilosophical method.

Now, would not a moment’s reflection decide that method most convenient which is best understood; and that best understood which is most philosophical? Therefore, the philosophical method should be the only one presented to the young learner.

It is believed, however, that the greater convenience consists in habit; and if the better method were practised until it should become habit, that method would be the most convenient.

Instead of meeting a subject in a direct manner, they back into it. Thus, when an integral number is to be multiplied by a fraction, they direct the learner to multiply the fraction by the integral number. If this subject were met directly, the scholar, having learned in this more simple process how to multiply by a fraction, he would be prepared for the more complex process of multiplying a fraction by a fraction, which has no such back way.

The process of dividing by a fraction is taught still more unphilosophically, or, we might say, it is not taught at all; for we are told to “Invert the divisor, and proceed as in multiplication”; that is, to do a certain thing, do precisely the opposite, and it will answer the same purpose. Authors and teachers may understand these ways of backing into results, but enlightened experi-

ence knows that it is too much to expect of simple learners to understand the magic. True, they may acquire a facility of doing it while their memory is fresh on the subject. How often do we hear teachers complain that their scholars do not retain what they have been taught. May they not trace the cause, in part, to faulty text-books?

Is it surprising that our scholars should be puzzled on finding division operated by multiplication?

Such obstacles in the way of progress are too numerous to be examined, or even specified in this article. They have been copied from book to book, and teachers prefer to teach as they have learned. Thus the evil is perpetuated.

The definitions are no less faulty than the rules. As an example, "A common multiple is a number that can be divided by two or more numbers without a remainder." Now, let any teacher who permits this definition to pass unchallenged, ask a class to give him a multiple of 6, and probably he will be surprised to find more in favor of 3 and 2, than of any different number. But why should he be surprised? The definition surely implies division. The name looks and sounds much like multiplication; and the thing itself is really a product. Why should not the definition run in accordance with the thing defined, instead of running in the opposite direction?

It is believed that proportion is made too formal and abstract; and in that way the reasoning powers of the scholars are too little exercised, as indeed is the case in most of the processes. The manner of expressing a ratio in the fractional form is in fault. To illustrate: If five yards cost three dollars, what would seven yards cost? Answer: Seven yards would cost $\frac{7}{5}$ of three dollars, which is four dollars and twenty cents. This answer is direct, logical, and natural. It is readily grasped by a scholar whose reasoning powers have had proper exercise.

The abstract method runs thus: As five yards is to seven yards, so is three dollars to the answer. Multiply the second and third terms together, and divide by the first term; which gives the answer, four dollars and twenty cents.

These two processes need only to be thus contrasted to satisfy any unprejudiced mind which an intelligent scholar would prefer, and best remember.

Let the objector attempt to solve this problem, thus analytically, by using the ratio expressed in the more common form, that is, $\frac{7}{5}$. He will either abandon it, and use the antecedent for denominator, or subside into the abstract method.

Is not the common usage a stumbling-block in the way of the learner? A naturally dull scholar, and those made dull by dogmatic abstractions, would blindly follow the rule, and temporarily, while they remembered the rule, make a better show than an intelligent scholar, who had not yet overcome the hinderances, and become a law unto himself.

Is any other than this practical argument needed to show which form of the ratio is most natural and convenient in its practical applications?

The principle of proportion runs through numerous arithmetical processes; and correct ideas of it are necessary to harmonious treatment, successful

teaching, and intelligent study of the subject. Its importance will justify a more particular examination.

With one term (a) and the ratio (r) given, may be formed the general series, a, ar, ar^2, ar^3 , etc. . . . ar^{n-1} , —

Any three successive terms form a proportion, thus, $a : ar = ar : ar^2$.

Any four successive terms form a proportion, thus, $a : ar = ar^2 : ar^3$. —

Each consequent is the product of the antecedent by the ratio.

In like manner, in any geometrical proportion, each consequent is the product of the antecedent by the ratio, thus, $a : b = m : n$; $a \times \frac{b}{m} = n$, and $m \times \frac{a}{n} = b$.

Indeed, a proportion is only a part of a geometrical progression. This is obvious where there is a mean proportional; and in other cases the proportion may be made a continuous series by inserting a sufficient number of means. In such a series, all are agreed that the ratio is expressed by writing the antecedent for the denominator of the ratio in its fractional form.

It therefore becomes those who change the natural order of the terms in the ratios, in treating a proportion abstracted from the geometrical series to which it belongs, to show something gained, to compensate for the inconvenience, and the loss of consistency.

The awkwardness of the common method is felt by authors when they treat geometrical progression; and they abandon it for the other method, without a word upon the inconsistency. One book, however, of recent date, deigns to notice the subject. After having defined the ratio as the constant multiplier, in a note the author says, "This is an unfortunate use of the term ratio. It were better to use the term rate." But what is rate, but ratio? Does contracting the name change the thing? He further says, "To harmonize the use of the term in proportion, with this use, may have led some authors to define ratio, as used in proportion, as the quotient of the consequent divided by the antecedent." Why should not ratio and proportion *harmonize*, wherever used?

"This definition," he says, "has neither logic nor common usage to support it." The statement, however, is here ventured, that the definition has logic in its support; and will eventually have common usage also, when the demand for more arithmetic in less time, shall be satisfied.

In that happy time, we may expect to see the numerous definitions, rules, and illustrations of arithmetic *harmonize*; to see less splitting of hairs in unimportant matters; less incumbering the books with the tracing of the nomenclature to Greek and Latin roots, for unclassical scholars; less of obsolete subjects, and other matters that are more appropriate to an encyclopedia; less of intricate problems, illustrating no principle, and serving no good purpose. We may expect to see, even in the lower grades of schools, the reasoning powers brought into activity, by more use of visible objects in illustration, and less of rote teaching, and less of rote learning.

J. S. R.

EDUCATION OF GERMAN GIRLS.

HANOVER, March, 1874.

THE German women are stronger than the American women ; one is compelled to admit that. But it is easy to account for it ; exercise, in doors and out, fresh air, plain food, and little brain work for generations back, have laid a good foundation physically for the present and future generations. The chief end of woman here, is to qualify herself to perform the duties of married life in a manner acceptable to her future lord and master, and to get married if she can. To this end, she must learn to cook, — soups, meats, puddings, and sour-kROUT. They buy bread, cheese, and sausage ; pies and cake are unknown. She must be able to wash and iron, and must understand the mystery of waxed floors. Then she must take all manner of private lessons in sewing, dress-fitting, cutting and making children's clothes, hair-dressing, the finer sorts of embroidery, making paper flowers, etc.; must cultivate music if she have any talent for it, — the ability to dance is inborn, and does not need any cultivation ; then she must go to live a year with some good woman to learn housekeeping, and finish off.

There she sees something of society, and learns to talk about other people's eyes and noses, and other elevated subjects. And all this time she has been knitting for herself perhaps fifty or sixty pairs of stockings, and making underclothes by the dozens, besides the Christmas and birthday presents which come in rotation year after year.

And then, when she is married, she must order the house, wait on her husband, take patiently his scolding when the grocer's bills are too large, or anything else displeases him, scold her children, and take in general a place above the servants, but below the men. I am told that the wives of the educated and salaried men have often a sad, hard lot, because their husbands so look down upon them, and hold the purse-strings so tight. But the maidens who are proud, say they would rather marry an educated man, than a mechanic, though the latter can make them happier.

The girls may study general literature, and English and French, and a very little Arithmetic, but no Latin or Algebra. The men have a horror of an educated woman. They make wry faces when an American woman innocently expresses a desire to study Chemistry in their Polytechnic schools, if that could be allowed. And the few women who go through the seminary, and fit themselves to teach, take positions in private families. Teaching in the schools belongs for the most part to the men. I have heard stout, healthy girls say that they should like to fit themselves to give instruction, but they are too nervous to teach ; which means, simply, that they are irritable and impatient, because they have not learned self-control ; for I have yet to discover any influence here which reaches the moral nature of woman, and disciplines and moulds and elevates her character. Consequently she is unprepared to give out any influence which shall lift others morally and spiritually, and she does not attempt it. Her children receive all their religious instruction during the first morning hour in the day school, and in the special Bible lessons preceding their confirmation, which takes place at fourteen or fifteen years. The strict obedience and outward respect demanded from

children are good, but one misses the deep, gentle influence which New England mothers have on the characters of their children,— the power which springs from moral culture, and which is silently exercised.

The men, by a long course of school training, get a development which gives them a superiority felt and acknowledged by both sexes. But is that development symmetrical? Would their natures not be nobler and purer if a mother's or a sister's influence, and not the state alone, had helped to elevate them? I shall not answer my own questions till I have been here longer; but the universal smoking and beer-drinking and *scolding*, and the little church-going, have partly satisfied me.

German women are not ignorant, and do not lack accomplishments; but they do lack the power which mental culture gives, and society feels the loss. It is questionable whether it is worth while to envy them their physical superiority, if the cramping of the soul is its inseparable accompaniment. The idea of sheltering woman and keeping her dependent would be very pretty, if she were to live an ideal life; but it is plainly not the way to fit her to do the real work which every woman does either well or ill. Even one whom the so-called Woman's Rights movement has never interested, on missing here a familiar something from our New England atmosphere, is set to thinking, and the idea of working, for women, acquires a new significance.

The programme of the Normal school for women is before me. The course is for two years. The number of pupils is one hundred. The studies for the new year commencing after Easter eve, are, —

French, three times a week.

English, three times a week.

History, three times a week.

General Literature, four times a week first year.

General Literature, twice a week second year.

Natural Science, twice a week first year.

Natural Science, once a week second year.

Art of Teaching, twice a week first year.

Art of Teaching, once a week second year.

Exercises on Teaching, twice a week second year.

Drawing, once a week second year.

Music, once a week second year.

Geography, once a week second year.

Arithmetic, once a week second year.

English Conversations, two afternoons from two to four o'clock.

French Conversations, two afternoons from two to four o'clock.

It is not required that all the pupils shall become teachers. Those who have completed the course and wish a certificate to that effect, must pass a written examination to obtain it. Those who subsequently teach in private families, receive from one hundred to one hundred and eighty thalers yearly besides their board. Two hundred thalers is a large salary. The lady teachers who are fortunate enough to obtain positions in girls' schools, receive an average of four hundred thalers and "find themselves." Their work in school is limited to French and English Conversations, and sewing,

knitting, and embroidery lessons,—these important branches being taught in every school.

The boys' schools are sacredly closed against woman's intrusion during working hours. The most noticeable thing in both boys' and girls' buildings, is the lack of apparatus for ventilation. Words cannot tell how dead the air is. The windows are kept closed in winter to save expense in heating. Perhaps it is not so bad in all places, but this city has a parsimonious magistrate. It seems a strange contradiction in a people so fond of out-of-door exercise as the Germans. The school furniture looks primitive. From three to eight pupils sit behind a long desk, and their only blackboards are the small portable kind. Wall blackboards, at which a whole class can work together, are unknown.

M. S. E.

HELPS IN ENGLISH LITERATURE.

To fix in the memory of students a few important dates in English Literature and History, we have found the following to be interesting and valuable. In Literature, we have selected twelve authors, beginning with Chaucer and ending with Tennyson, and supposing them to represent stories in a monument which we have constructed in this manner. If the figure is drawn on the blackboard, it should be about four feet high, and three wide at the base. This literary monument has the general shape of a cross resting on a heavy foundation stone. Above this rests the first stone, divided in the middle into two divisions. The next stone, divided as before, rests on the first, while the third stone is placed on the second. The shaft, consisting of two stones, rests on the third. A long, horizontal stone, divided into three parts, surmounts the shaft. On the top is placed the cap-stone, divided into two portions. When the figure is drawn in correct proportion, and carefully shaded, we have a fair representation of a solid stone monument, with twelve divisions on its face. We have made use of this figure in the same way. On the face of the solid foundation stone are printed the words: *Celtic*, next to the ground; *Anglo-Saxon* above this; *Danish*, *Norman-French* in the line above, and above all the words, *ENGLISH LANGUAGE* in large capitals. On the face of the first stone is written, *Chaucer*, 1400; on the second, *Spenser* 1600; third, *Shakespeare*, 1616; fourth, *Bacon*, 1626; fifth, *Milton*, 1674; sixth, *Dryden*, 1700; seventh, *Addison*, 1720; eighth, *Pope*, 1744; ninth, *Cowper*, 1800; tenth, *Byron*, 1824; eleventh, *Wordsworth*, 1850; twelfth, *Tennyson*, 1874. Of course, some will prefer to use different authors to represent their times, but these names may readily be changed to suit one's taste. When the pupil has mastered this chronological outline, the teacher can suggest and the scholar fill in, either orally or written, other authors, important events, etc. Many other things besides mere dates can be used with the figure, as general remarks on the times, in a literary, historical, or philosophical point of view. We have found that the student is easily interested in the preceding work, and that dates are readily and firmly fixed in

the memory. This same method can be used to advantage in American Literature, Ancient or Modern History. We have also used, in the same way, the "*Rustic Arch*," which can be found in the back part of the Dictionary. The figure is easily drawn, but does not make the substantial appearance of the stone monument. In the arch, it would be a good idea to draw a large keystone, and write across its face, *ENGLISH BIBLE, 1611*.

The game of authors has long been popular with young people. After a class has read from a dozen or more authors, we have prepared a game from the authors read in the following manner: We procured a sufficient number of blank cards, and made up the "books" from the desired authors, by printing them with pen and ink, and underlining the heading with red ink. The game was then tried, and, if it proved interesting, the names in the different "books" were given to the class, and the class instructed how to prepare a similar set, and also advised to spend some of their leisure time in playing the game. The game serves to instruct the scholars in their study, and to fix in the memory the names of the authors and their principal works. We give a few of the "books" we have used. (1) *Charles Lamb, Elia, Rosamond Gray, Old Familiar Faces*; (2) *Addison, Cato, Spectator, Roger Coverly*; (3) *Goldsmith, Vicar of Wakefield, Deserted Village, She Stoops to Conquer*; (4) *Tennyson, Locksley Hall, Princess, May Queen*.

A. F. BLAISDELL.

THE question of "cosmopolitan schools," or the maintenance of public schools where French and German are taught to the primary scholars, has recently been up in San Francisco. The Board of Education of the city found that a large number of such schools had grown up and were burdening the public, while insufficient accommodations were provided for pupils in common English branches. They accordingly swept away the polyglot schools at one stroke; but the city authorities have "requested" the re-establishment of "a number of such schools when it can be done without additional expense." In the course of the debate it was said that seventy-five per cent of the pupils in the primary schools never get any farther, and eighty per cent of those in the grammar schools never go any higher. That is, out of one hundred scholars in the primary schools, twenty-five appear in the grammar, and five in the high school. — *Springfield Republican*.

PLAIN CLOTHES FOR THE SCHOOL-MARMS. — We plead in the interest of our nation against the fashion and extravagance in dress that is creeping into our public schools. We plead here with the lady teachers, for on these in great measure depends the standard of opinion of the school. Let them remember, each day, that they are going to work, and let them dress in accordance with this fact, — in dresses from which the chalk-dust will shake easily, with no fringes and loops to catch in going through the aisles, no heavy trimmings on the skirts to make more weary still the oft-times weary day. Let them not wear laces, but plain white linen collars and cuffs. Let them discard all fancy ornaments in their hair, and a new and more healthy tone will begin to pervade our school-rooms. More attention will be paid to work, because less will be demanded for outward adornment; but better still, the girl of poor parents will have no need, because of her clean calico dress, to shrink from comparison with her more wealthy sisters, or try to shine by the addition of faded or soiled finery, or grow insolent to make up for the lack of it. Can we not in any one school unite all the lady teachers in a plain-dress club for purposes of reform? — *Anna C. Brackett*.

INTELLIGENCE.

PERSONAL.

ABBIE M. HOLDEN, of the Gaston School, Boston, has tendered her resignation.

SUSIE B. PRATT, of Brooklyn, accepts a position in the Lincoln School, South Boston.

MISS M. STEELE, of the Bridgewater Normal School, is elected to an assistant's position in the Lewiston (Me.) High School.

MARY T. PRICHARD, of the Prescott School, Charlestown, has resigned the position of master's assistant.

ABBIE M. PARKER, of Reading, is appointed assistant in the High School, Middletown, Ct.

FANNIE BLANCHARD has been confirmed as teacher in the Tuckerman Primary School, Boston.

EUNICE B. DYER, of the Bunker Hill School, has been appointed master's assistant in the Prescott School, Charlestown.

MR. MOSES, of the Hopkinton High School, has been elected principal of the Fair Haven High School.

MR. JONES, of Westfield, has been elected principal of the Hopkinton Grammar School.

HANNAH HILL, of Watertown, has been elected teacher in one of the Grammar Schools, Cambridge.

CAPT. CLARK, of Milton, has been chosen principal of the Natick Grammar School.

MAUD MCWILLIAMS has accepted a position as teacher in Natick.

Miss WILLIAMS goes from Granville to Natick.

MR. C. CLAY, of the Medway High School, goes to the Hopkinton High School.

MASSACHUSETTS.

SALEM.—The teachers in the Primary and Grammar schools are earnestly taking hold of the new course of study and following it with excellent success.

The exhibitions in music and drawing, which will occur in June, promise to be interesting and highly creditable.

A school for the instruction of children of French operatives in the mills is demanded. The Naumkeag School, which receives the same class of pupils, continues to be well attended and successful.

The new Holly Street house is furnished with Haskell's "Classic" desks in rooms 1 and 2, and with Shattuck's furniture in the other rooms. It is ventilated with the Eureka ventilator, which is the nearest approach to perfection in that line, known to us.

MISS ABBY A. GRANT has been transferred from the Browne Primary to the Holly Street Grammar School, to fill the place of Miss Roberts, resigned, and Miss Mary Choate succeeds her in the Browne School. Miss Susan M. Glover has been appointed teacher in the Holly Street Primary.

MISS GEORGIANA R. KEHEN has been transferred from the Pickering Grammar to the Holly Street Grammar; Miss Mary E. Kinsman, from the Bowditch to the Pickering; and Miss S. Fannie Cleave has been appointed assistant in the Bowditch School.

MISS ABBY T. NICHOLS, principal of the Boston Street Primary, is absent in Europe on a six months' tour.

The evening schools—two in English branches, and two in drawing—have closed, after a profitable term. The school in free-hand, however, is still kept open for advanced pupils in perspective and shading. Mr. J. Warren Thyng, principal of this school, recently received from his pupils two portfolios, containing twenty large and finely executed photographs of cartoons by Michael Angelo and Correggio.

SPRINGFIELD.—Rev. M. C. Stebbins has resigned the principalship of the High School, to take effect at the close of the present term. Mr. J. N. Holt, of Middletown, Conn., has been appointed assistant teacher in the High School, vice Mr. C. F. Rice, resigned. Misses M. E. Marsh, of Palmer, J. G. Sevey, of Cheshire, and L. A. Richardson, of the Indian Orchard School, have been appointed assistants in the Elm Street Grammar School, in place of Misses Boggs, Tower, and Canterbury, resigned. Miss R. A. Sheldon, principal of the Indian Orchard School, who has for a time been absent on account of ill health, has returned, and resumed her place at the head of the school. Miss Hattie F. White, a late graduate of the Westfield Normal School, takes the place of Miss Richardson, transferred to the Elm Street School. Miss Emma C. Brownell, of New Bedford, succeeds Miss E. E. Buttrick, of the Hooker School, resigned. Miss S. Louise Cook, principal of the Charles Street Primary School, is absent on account of ill health, and her place is filled by Mrs. M. A. Williams. Miss E. C. Clark has resigned the principalship of the White Street School, and is succeeded by Miss Georgie F. Thayer. Miss C. St. John, of Simsbury, Conn., takes the place of Miss Susie D. Carter, resigned, in the Worthington Street School. Miss Lizzie G. Yeaton, who left the Oak Street Grammar School in the autumn, on account of ill health, will not be able to resume teaching, and her position is filled by Miss G. H. Colton. Miss Louise F. El-

well succeeds Miss Ella Randall in the Bridge Street School, who leaves on account of ill health, and Mrs. Julia Whitney takes the place of Mrs. Lizzie E. Crane, who has resigned her place in the Central Street School. The new High School building will be ready for dedication in September.

NEWTON.—The distinctions long existing in the schools as primary, intermediate, and grammar have been abandoned, and the classes, from the lowest primary to the highest grammar, are numbered in order from one to nine. The schools which have retained the number of the old districts until now have received new names. The schools in District No. 1 are named as follows: Mason, after the late Hon. David H. Mason; Hyde, after the mayor; Prospect and Oak Hill. No. 2, Hamilton and Williams. No. 3, Pierce, from the principal of the Normal School when located at West Newton; Davis, Franklin, and Adams. No. 4, Bigelow, from the lamented Dr. Bigelow; Underwood, from the late efficient chairman, Gen. A. B. Underwood; Lincoln and Jackson.

MISS S. N. DUNCKLEE, who has served the town successfully for twenty years, has resigned to take an honorable and more lucrative position in the Newton Bank. Annie E. Abraham succeeds her. Martha C. Harriss, of the Bigelow School, has resigned, and Lucy M. Loring succeeds her. Lucy E. Davis has been appointed regular teacher at Auburndale, or more properly at the Williams School, Ward 3. Martha M. Ring has been transferred to the Bigelow School, and Alice Pitts has been appointed at the Jackson School. Esther B. Barry has also been appointed at the Bigelow School.

VERMONT.

MONTPELIER Conference Seminary has just received the resignation of Prof. G. G. Bush, Instructor of Languages.

WINDSOR.—Miss Emma A. Preston, first assistant in the High School, resigns

that she may have a season of rest before the work of another year.

SPRINGFIELD loses from its Board of Education Rev. L. H. Cobb, who has for many years, while both pastor and teacher, been an efficient worker in our cause. Mr. R. O. Forbush has been chosen in his stead.

ST. PAUL's church proposes to engage Mr. J. E. Seward, at present a tutor of Greek in Harvard College, for a three months' trial in its pulpit. The society has gained 111 new members recently.

GENERAL.

FAIRHAVEN. — NEW PRINCIPAL FOR THE HIGH SCHOOL. — The recent Principal of the High School having gone to calm the troubled waters of the Webster High School, the School Committee of this place think themselves fortunate in securing the services of Mr. Vincent Moses, who has an enviable record as a teacher in Medway and Hopkinton. Mr. Moses is a graduate of Amherst, class of 1864, and Hartford Theological Seminary, class of 1871. The High School building has been painted and put in thorough repair; the number of pupils is about 100, and there are two assistants.

BOWDOIN College has called Franklin C. Robinson, of Bangor, to be its professor of applied chemistry.

THE proposals for the erection of the new Smith College building will be all in Saturday, and the contract will be awarded next week. The contract requires that the building be covered and closed in by September 1, and completed next year.

DANIEL LADD, who recently died at Epping, left an estate worth \$100,000, \$3,000 of which goes to found a school at Epping, to be called Watson Academy. A J. J.

FOR the first time since its organization, the Deerfield Academy and High

School is under the care of a lady principal, Miss J. O. Hall, of Ashfield.

DR. J. M. BREWSTER was re-elected superintendent of schools at Pittsfield by the committee, last week, with a salary of \$1,500.

VINCENT MOSES, who graduated at Amherst College in 1866 and at the Hartford Theological Seminary in 1871, has become principal of the Fairhaven High School.

WILLIAM CULLEN BRYANT, the poet, has offered \$1,000 towards building a new road in Cummington, and the town has been foolish enough to defeat the project by one majority.

BROWN University at Providence has just received a gift of \$25,000 from Horatio N. Slater, of Webster, Mass., unencumbered by any conditions, which makes \$53,000 that Mr. Slater has given the university.

WILLABEE HASKELL, teacher of languages in the East Maine conference seminary at Bucksport, has resigned, and will probably accept a professorship in Yale College.

THE Mount Holyoke Seminary grounds at South Hadley are being laid out by a party of four engineers, under the direction of E. W. Bowditch, the Boston landscape gardener. From there the party will go to Easthampton to survey the Williston Seminary grounds, and thence to Northampton to lay out the new Smith College property.

LYNN. — PROPOSED CATHOLIC SCHOOL. The Catholic Society of this city soon anticipate the building of a "Sister School," for the intellectual and spiritual training of their children, on the large lot of land, comprising 30,540 feet, situated on North Common Street, near Vine Street. This lot of land was purchased in June, 1872, for \$25,000, of which amount \$15,000 has since been paid. A considerable amount of the remaining

debt it is thought will be raised by the Catholic fair, at present being held in Exchange Hall. As soon as the full amount has been paid, which the society trusts will be in a short time, plans for a school will be immediately drawn, and the erection of a building will be commenced. The plans and erection of a building will be under the supervision of the Rev. Father Strain, through whose personal exertions were erected the Broadway Catholic Church, of Chelsea, the St.

Mary's Church, of Lynn, and the Nahant Catholic Church.

THIS number of the "Teacher" would have been edited by Miss Anna E. Johnson, had she not been too much out of health to do so.

We have, however, received from her, several of our most interesting articles, viz. the article by "Jay," "Gifts"; "The Study of the Old English Poets," and that over the signature S. M. C.

Books.

MODEL DIALOGUES: A New and Choice Collection of Original Dialogues, Tableaux, etc. Compiled by Wm. M. Clark. Published by J. W. Daughaday & Co., Philadelphia.

This book will be a favorite with the young, and teachers will find in it many familiar dialogues of a "cheerful and humorous" character, well adapted for exhibitions.

Familiar dialogues that have any wit in them, and are not objectionable on the score of coarseness or impurity, are more scarce than one might suppose; and whoever succeeds in selecting such will be pretty certain of finding a sale for his book, while he may be sure that he is doing something to assist teachers in securing a natural and graceful style of reading.

THE LIFE OF THEODORE PARKER. By O. B. Frothingham. Published by James R. Osgood & Co.

This new biography of Mr. Parker, read in the light of the national events of the last dozen years, will be found full of interest to those who were in sympathy with him in all the great humanitarian reforms of the times, though they may not agree with his religious views. The Unitarians may not like to be reminded of all the old theological controversies, though they can hardly

afford to quarrel with the author for what he has done, when so many of the denomination have not only accepted his views, but gone beyond them.

The biographer, like the subject of his biography, is outspoken and fearless; and no one, we suppose, will now doubt that Theodore Parker had, at least, the merit of being an indomitable and fearless worker for what he *believed* to be true and right. Such a man is not to be measured by his speculative belief, and we think it a hopeful sign of the times, that he is already recognized as one of the great and good men of his time by all denominations of Christians, and all parties in politics.

The book is largely made up of letters which give us an inside view of the man, and such an insight into character as no public ministrations afford.

FIRST STEPS IN GENERAL HISTORY. A Suggestive outline, by Arthur Gilman. Published by Hurd and Houghton.

We are not particularly fond of outlines, as a general rule, consisting, as most of them do, of dry facts, and bristling with dates of events, of which the pupil knows so little that he has no interest in them. But Mr. Gilman has given us what it claims to be, a "*suggestive outline*"; and

the style is so pleasing, that one gets even from this enough to stimulate his curiosity to make further investigation.

The maps, "purposely free from details," are great aids in giving the geographic relations of the countries, and the synchronistic tables will be found valuable both to teacher and pupil. Used as suggested by the author, "associated with the study of biography, geography, and literature," and making "Peter the Hermit," "The Children's Crusade," "Oliver Cromwell," "Prince Eugene," etc., "the subjects of essays," it cannot fail to be an attractive book to pupils, and a great aid to the teacher in giving the important personages and interesting events of history their chronological and geographical place.

THE EDUCATION OF AMERICAN GIRLS. Considered in a series of essays. Edited by Anna C. Brackett. Published by G. P. Putnam's Sons.

Although these essays take a wider range than Dr. Clarke's "Sex in Education," we presume that but for the appearance of that work we should not have had them; at least, in the present form. Whatever view one may take of Dr. Clarke's book, all must admit, we think, that it has aroused attention on an important subject, and led to investigations and discussions that cannot fail to result in good. Of these essays, we may say in general, that, while they have in no degree modified our opinion of Dr. Clarke's book, they contain much that is very valuable, and that in no way conflicts with his views. In the first essay, on the "Education of American Girls," there is much practical good sense and good advice on physical education, — the proper kind and amount of food, sleep, clothing, and exercise.

The statements with regard to the nature and purpose of education do not seem so clear. If "By nature, man is not man at all," and if "Only so far as by force of spirit he *overcomes*, rules, and directs the nature in him, can he lay any claim to manhood," it seems to us

that the process which is to advance civilization is not education, development, but conversion.

This theory, however, does not vitiate the author's views of mental and moral education, as throughout the whole of what follows, mental and moral culture is treated purely as a development.

The second essay, "A Mother's Thought," etc., by Mrs. Cheney, is a gem. Every teacher and every mother should read it. Of the others, it may be said that they contain much tending to throw light upon the vexed question of the co-education of the sexes, and are interesting and instructive. We cannot always approve the spirit of some of the essayists when Dr. Clarke is referred to.

SCHOOL AND HOME. By Miss D. A. Lothrop, Principal of the Cincinnati Normal School.

These "Reading Papers" for children, in the 2d and 3d Readers, will be a very welcome contribution to the reading exercises in the upper classes in primary schools. The four numbers we have seen contain excellent selections to interest children, and we believe that something fresh and new will keep up an interest in reading which it is difficult to do, when the pieces have been read or heard a hundred times. They are published by Geo. E. Stevens & Co., Cincinnati, who will furnish specimen copies to teachers desiring them. "The Nursery," published by Mr. Shorey, is used in many schools with excellent effect, and we have no doubt that by its use at home and in school better readers are made than by the regular drill, as prescribed by the programme, in the regular textbook.

We remember the answer of a gentleman to the inquiry, "how his daughter became so beautiful a reader." He attributed it to the fact that she had never been to school; but, after teaching her the merest elements, she had been supplied with little story-books, in which she would become so much interested that she would insist on reading them to her mother. Reading thus for the sake of the *story*, of course she would read well. She acquired the habit of reading from the *ideas* instead of merely *calling words*. It then became necessary only to attend to the merely mechanical exercises of articulation and pronunciation.

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SECONDARY EDUCATION IN THIS COUNTRY AND IN EUROPE.

BY PROFESSOR E. G. COY.

[A Paper read at Worcester, before the Mass. Asso. of Class. and High School Teachers.]

I AM to speak on the subject of secondary education in this country and in Europe. It would be useless for me to go into details concerning the character and management of European schools. I shall only call your attention to differences of aim and method, in such a way as to suggest and emphasize some needed improvements in our American system.

For I hold that we must have our own national and American system of education. Public life in this country makes peculiar demands upon the citizen, and in certain respects is unlike that of any other country; and as the future of an American citizen is not determined nor limited by the accidents of birth or social connection, but is, so to speak, in his own hands, its precise needs cannot be easily foreseen. There is hardly a week when a man's prospects, with us, are not conditional upon what he can do with himself, for himself. Therefore the work of his education ought to be, to make him most thoroughly master of himself; to make that self strong, and to bring out, into vigorous self-dependence and self-assertion, his individuality.

In this country, therefore, we cannot afford to be method-hunters, imitators. The very moment you hinge success in

education upon a method or a course of study, you degrade the instructor to a mere machine or at best a slave, and the scholar to a commodity ; and at the end the finished work goes into the world to share the fate of other trade-marked articles.

Our study of European schools, to be most profitable, must be pursued in this spirit. Method is not everything by any means. The best European method is not likely to be the best for us.

Yet there is a tendency among us towards imitation, and in some places the tendency has developed into action. If it should spread to any great extent, it will mark a very important difference between American and German educational systems.¹ German schools, of all others, have a national character. They are, so to speak, indigenous ; the ripe fruit of a growth. To be like them in excellence and efficiency, ours must be the same. Their worth will depend less upon methods, valuable as superior method is ; more upon the personal element which is invaluable and indispensable.

I have said that the German system has a national character. I would emphasize the word character. Its features are the consistent development and mutual dependence of integral parts. Has the American system any character ? Does the phrase "secondary education" have any specific meaning with us ? Nearly the whole of Freshman year in college is usually spent in assimilating the members of the class. Many of them have a better fit for Sophomore than for Freshman work, and scores could not maintain standing in the Senior class of the best preparatory schools. The whole matter seems to have been left to the chapter of accidents ; and the colleges, by insisting on the worthless test of an entrance examination, have at last aroused a pronounced antagonism in schools where they could not succeed in producing servile obedience.

The ultimate aim of secondary education in Germany is the discipline of the student's mind ; the result is well-educated men. Our system proposes the same thing as the German, but its prosecution must be terribly perverted at present ; for although we

¹ I shall consider only German schools, as they are the best in Europe. For details, see Matthew Arnold's Report, etc. Macmillan & Co.

have a plentiful and increasing supply of well-informed men, the increase of the thoroughly educated is in no sense remarkable. Every week, almost, brings instances of men breaking down into failures, on the eve of success, from mere lack of mind-power needed to crown their work. It is even getting quite common to seek our teachers and ministers in the old countries.

If now we look into the details of this German system for a moment, we see at once what and where the flaw in our own system is. In their secondary schools Latin takes from eight to ten hours per week for nine years, and Greek about six hours per week for seven years. These two *disciplinary* studies thus take half of the thirty hours per week of school time devoted to all branches. "*Practical*" study is forbidden by law. General, not "special," training characterizes even the scientific secondary schools, where Latin takes more time than any other study, and is obligatory.

In our system, about the same number of hours per week are devoted to classical study, for three years ; very rarely for more than this. But every teacher knows how strong the pressure is, both from within and from without, to give it the utmost "practical" turn. What a cry has recently been raised here, about the folly of spending three or four years in the study of a dead language ! I would, however, not be understood as desiring any increase of the time now given to this kind of study ; but I would plead that this time ought to be spent in honest work, according to the best traditions of the profession. The Germans are satisfied with a century's successful trial of this method ; and when we contemplate the great men of our own past, the ripe fruit of the same method in its integrity, there ought to be no doubt in our minds of the excellence of it. On the contrary, if disciplinary study has its sphere anywhere, it is in this country where, as I have said, everything for a man depends so largely upon what he knows of himself and can do with himself. There are those who would even claim that it ought to characterize the whole scheme of instruction ; and it may truly be questioned, especially by teachers, who know well enough how worthless, for purposes of instruction at least, is their hold upon the knowledge supposed to have been mastered during student life, whether a

man's mastery of the world outside of himself, and in the line of some one of the "real studies," is not his life-work, rather than a part of his preparation.

But a moment's reflection shows that disciplinary study should certainly be the characteristic of the secondary school. Not simply because the colleges are in many instances doing nothing of the kind, but are encouraging a sort of intellectual vagrancy, against which the student ought to be fore-armed, but because the mind and character are at this period more plastic. For the truth of this statement I need only appeal to your experience as teachers. Indeed, the student himself testifies to it, so much does he depend upon the work of this time. How often does he look back with unwonted reverence to the service of one who then prompted him with an eminent standard, and inspired him with a grand ideal. Dr. Taylor held fast that regard of his pupils which they had for no other instructor, and it was because he was equal to the demands of this critical and never-returning opportunity.

A work, then, so important, so sublime as the discipline of a receptive mind, the opportunity for which lasts but for one short interval, ought to be pursued neither carelessly nor hurriedly, and always with direct and special reference to the individual needs and welfare of the student; and to this end, the teacher, in fulfilling his personal obligations, must be untrammelled by other men's "superior methods," or by, what is worse, the necessity of sacrificing the time and abusing the mind of the student in the mere special preparation of a certain amount of college requisitions. This brings me to notice another difference between the German and the American policy.

Matthew Arnold, in his report on German Schools, says that after twenty years of experimenting, it was finally decided, that inasmuch as training and not cramming was the object sought for, the student's preparation could be best secured by taking the certificate of the secondary school as the evidence of it. Schliermacher was the originator of this reform, which has now stood the test of at least fifteen years of excellent service. Every precaution is taken to force the student to remain a prescribed time under the training of the secondary school. "So well," says

Arnold, "do the German authorities know how insufficient an instrument for their purpose—that of promoting the national culture and filling the professions with fit men—is the bare examination test; so averse are they to cram; so clearly do they know that what forms a youth, and what he should always be induced to acquire, is the orderly development of his faculties under good and trained teaching." The "leaving examination," so called, is thus also controlled by being taken with new work designed specifically for testing, not so much his amount of information, as his power of mind; and for it cramming is of course impossible. The results have been, a far higher standard of university training and more numerous and better secondary schools."¹

In our preparatory schools, however, whether we intend it or not, "the total cultivation of the student" is almost lost sight of in preparation for an examination. From the example of German schools, therefore, I would urge that whenever a preparatory school is found to be conducting a pupil through a course of training calculated to fit him for the responsibilities of college life,—we ought to look beyond the mere passing of an examination,—the college ought to take the diploma instead of insisting on the entrance examination. The advantages of such a course, with reference to the true object of secondary and all other education, may be easily enumerated. First, it will secure the teacher in the enjoyment of that independence of action, by which alone he can hope to meet in the largest degree the individual needs of his pupils. The spirit and temper of the whole class will often vary from day to day. "The unsuspected thing is always happening," and the successful teacher must be able to shift his sails with the wind. But it is safe to say that under the present restrictions, the secondary schools cannot rise to the moral grandeur of their opportunity. Secondly, the attention of the student can be diverted from those painful efforts "to pass" the examination, from which our best scholars (?) sometimes relapse into incurable torpor, and directed to a wholesome contempla-

¹ This Mr. Arnold states as the fact. When I speak of thus reforming our system, the reasons for these results will be stated.

tion of his own interests. Under the present arrangement, it is no small task to keep a class from losing sight altogether of the advantages of classical study, in their anxiety to meet the literal requisitions of the different institutions ; and many of those who are unable to maintain the average rank resort to private tutors with the avowed purpose of having deficiency of discipline concealed under abundance of information. The worst of it is, they succeed. Thirdly, it will therefore be a step in the interest of sound scholarship, both at the college and in the preparatory school. For it must certainly destroy the pernicious system of "coaching," by which, as has just been shown, students are lifted over the entrance examination, only to struggle over the course with vain regrets for irretrievable folly ; and it will enable the better class of schools to command endorsement and supporting patronage in their efforts to at least sustain the high standard of the past. I say to sustain it, because the recent tendency to augment the conditions for admission to college makes it impossible to think of improvement. Look at the amount of work which it has demanded of my class for this year,—in Virgil, the Eclogues, Georgics, and four books of the *Æneid* ; in Sallust, *Catilina* ; in Cicero, *De Senectute* and *Pro Archia* ; in Xenophon, four books of the *Anabasis* ; in Homer, three books of the *Iliad* : then search the essays of the ablest writers for the benefits of classical study, and from a catalogue of these benefits make out a schedule of instruction, and tell me if the demand is not stupendous, preposterous. And if, too, you are not thus satisfied that quantity is purely incidental to that quality of preparation which alone makes the scholar, meditate on the report which came to me this week from two of the leading New England colleges, that students from the Boston Latin School and from Andover are not now as well prepared for the work of the college, as under the old *régime*. Thus again we notice the excellence of the German schools, which have at last freed themselves from a degeneracy to which ours are still exposed ; they have accomplished this by the operation of the "leaving examination." With the present state of public opinion among them, I truly believe that if a board of examiners were to condition a student simply

because he had read six books of the *Æneid* instead of twelve, they would expose themselves to obloquy.

Should the question be asked, however, Why cannot Phillips Academy lengthen her course of study so as to cover the requirements of the most exacting colleges? I answer, Because she would thus sacrifice her position among the preparatory schools. The tendency everywhere is towards a public school system which shall fit boys for college. This narrows down the work of the academies; they can thus do little more than supplement the elementary home training, by two or three years of special drill in classical and historical study, and by a development and discipline of character in their miniature public life which cannot be given by teachers. Hence the more they attempt to inflate their classical course, so as to include all the latest novelties, the more they must tend to becoming the local fitting school of their neighborhood, the sooner they will cease to be national. This is well illustrated in the cases of Exeter Academy and Harvard College, nine tenths of whose students have usually resided in Massachusetts.¹

The impulse which starts a boy from home for study does not come usually until after he has had time to receive excellent elementary training in the "real studies." Not over one fifth of the Senior class at Phillips Academy, Andover, this year, have been in the institution three years; at least one fifth have commenced with Senior year, and in mental discipline have been equal to the best.² In fact, the school has won her brilliant national reputation by having concentrated her advantages upon the two years of study to which most of her pupils have been necessarily limited. Herein, it seems to me, is her mission, and a glorious one it may be. But on this policy, she must sacredly guard her entrance against those not likely to be fitted by her supplementary course for the requirements of college life. I say, college *life*, for that is after all the only test.

I have thus presented to you six points in which the German

¹ See catalogues.

² Fifty per cent of the classical students usually come from outside of New England.

secondary schools differ from our own, viz. Their national character, their completeness and consistency of detail, their preference for disciplinary study, their freedom from restraint or dictation by the operation of the "leaving examination." Each one of these is certainly worthy of our thoughtful attention, — may I not say, of our commendation ?

NEW DEMANDS UPON PREPARATORY SCHOOLS.

No one at all conversant with the current history of education can have failed to observe that within the last five years there has been a large increase in the demands upon those schools which are occupied with what is now termed secondary education. There are two evident causes of this increased demand. In the first place, many of our colleges have raised their standard of admission, demanding both a larger amount of preparatory work and a greater variety of it. This fact is specially illustrated by what has been done at Harvard University. But it is evident that our other leading colleges are in sympathy with the movement, and are simply waiting to obtain more evidence that the laws which prevail in the realm of Political Economy have their counterpart in the province of education, to such an extent as to render it morally certain that an increased demand would create an increase of supply. Recent correspondence with the presidents of several of our leading colleges has convinced me that there is prevalent a disposition to press upward the standard of admission as fast as it can be done successfully.

A second source of the pressure upon secondary schools is to be found in the multiplication of special courses in colleges, scientific and technical schools. Already, to a considerable extent, these special courses demand special preparation ; the continued operation of the cause which has occasioned the existing diversity of requirement cannot fail to increase it. To turn aside and discuss the wisdom of this turn in our educational methods, would be about as productive of profitable results as the consideration of the relative effect upon the commercial interests

of the nation in having the Mississippi River flow into the Gulf of Mexico rather than into the Arctic Ocean.

We may as well recognize the stubborn fact, and ask seriously how we can best meet it.

That no adequate provision has yet been made in our secondary schools seems to me perfectly evident. To delay longer the needful reorganization must either open a wider gap between the preparatory schools and the higher educational institutions, or drag the latter down by the dead-weight of the former. Neither result is excusable except on the ground of its necessity. How shall the desired end be attained?

The first step is to abandon the theory and practice involved in a widely prevalent custom of forcing all pupils, in a specified time, over work identical in kind and amount.

Our laudable ambition to be a well-educated people has induced us to be prodigal of legislation and material resources as means by which to reach the coveted state. We have built excellent school-houses, supplied them with apparatus, established normal schools, without charge for tuition; built in connection with them extensive boarding-houses to lessen the cost of board; and have even provided a fund to support the more needy, while in a course of preparation for teaching; we have created State Boards of Education; reorganized our school committees so as to give them greater permanency, and greater security against popular fickleness; created the office of superintendent; our schools have been graded and graded; our courses of study have been elaborated: and yet the minds of a great many people are disturbed by the conviction that all these improvements do not add so much to the breadth and efficiency of education as might reasonably be expected.

What does it mean that, just as we are proposing to startle the world by our exhibition of the wonderful perfection of our system of education, we ourselves are startled by the clarion voice of the great teacher, whose recent death we lament, assuring us that our system is all wrong; that in our attempts to educate we have been crushing nature under a burden of arbitrary requirements? Does it not mean that a compromise is needed? We have tried to work in the realm of intellect and

soul by means and methods specially appropriate to the realm of matter. We have used mechanics where we ought to have used philosophy. Just in proportion to the extension of the means of education, so as to take in all classes, is the occasion to vary means and methods so as to secure wise adaptation to the different abilities and subsequent occupations.

Those who are aiming at a liberal education, and need to press on over their ever-widening course as rapidly as their mental compass and development will allow, should not be held back and stupefied by rules and methods, even but moderately adapted to those who will never do more in the schools than to approximately comprehend the branches taught in the Grammar grade.

As a second step, we should allow larger freedom and wider range in our courses of study. It is not practicable, if it were desirable, to make the course of study in our preparatory schools sufficiently broad and full to cover all the requirements for the different courses of Harvard University, nor again for the courses of other New England colleges and scientific schools.

Pupils designing to pursue any specific course, in any of these higher institutions, should have as good an opportunity as circumstances will allow to obtain a thorough acquaintance with those branches which have been authoritatively determined to constitute an adequate preparation for the successful prosecution of such a course. For example, students intending to pursue the classical course at Harvard should not be compelled to master the advanced algebra, geometry, trigonometry, and analytical geometry required of those who elect the course in engineering, or the course in mathematics, physics, and astronomy, in the Lawrence Scientific School.

But the objection is made that such a latitude would seriously interfere with the systematic division of the school into classes: scholars that enter the school together would soon be found going off in divergent lines, instead of keeping parallel. Well, what is there alarming in such a contingency? Is not this exactly what the new departure in our colleges and scientific schools is providing for as a natural and desirable result? and if such is to be the order in these higher institutions, must not the influence reach back into the preparatory schools?

The worth of a system, like the worth of a machine, depends not so much upon its intrinsic simplicity and beauty as an object of contemplation, as upon its adaptation to bring about an important result. A tin candle-mould in which you could run four candles at once, was a very serviceable article when we had to depend upon tallow candles as the sole means of illumination, but most people do not consider it so indispensable when our houses are lighted with gas. So I would say, when the horizontal division of a school into four classes ceases to be a help, and becomes a hinderance to securing the most valuable results within the compass of the school, then let us make it a matter of history, revere it for the good service it has rendered, but use whatever will more easily and surely attain the ends at which we are now aiming.

The second objection is, that the plan proposed will multiply classes, and so necessitate the employment of a larger number of teachers. Perhaps we shall more readily apprehend the real force of this objection if we put it in another form, and say that we cannot multiply the efficiency of our schools without involving some increase of expenditure. Each community would have to decide for itself how far it would go in providing desirable facilities for those it has to educate, just as each town or city now determines how elegant, commodious, and well-appointed its school-houses shall be. If an appreciative and liberal community choose fully to supply the local demand for teaching force, its educational interests will be in a more healthy and thriving condition, while those of its youth who are ambitious to gain a liberal education will be greatly stimulated and helped to go on without discouraging delay. In towns where there is less wealth, or less liberality, the diminished advantages would necessitate slower progress; the more ambitious scholars would seek, as they now do, the benefit of schools that furnish greater advantages than those at home.

I leave this special topic with the single remark, that our philosophy of education should aim at excellence and largeness of results, rather than ideal perfection of mechanical methods.

But as our colleges and scientific schools are helped or hindered as the work of the high schools and academies is well

or imperfectly done, so are the latter limited in their possibilities by what is done, or not done, in the grammar schools. In many of these, I am sure, much larger and better results can be attained, and that too without increasing the burdens of the pupils. Something is to be gained by being less stringent in the matter of keeping large classes together for a given period of time. More regard should be paid to difference in capacity. There is no more potent and healthful stimulus for the mind than the consciousness of successfully grappling with work that really tests one's ability. Bright scholars are often seriously injured by being kept for weeks upon processes that have no interest for them. In this condition the muscles of the mind, if I may be allowed the expression, wither for lack of use. Mental operations that are concerned only with what is trite are void of interest, and therefore nearly profitless.

If it be an evil to force pupils beyond their ability comfortably to perform their work, it is an evil, hardly less, to withhold what the mind craves, substituting that from which the nutriment and savor have both been extracted. I believe that a great loss of time and effort, both on the part of teachers and scholars, is the result of a lack of adaptation of method and work to the mental condition of the pupil. The error is not so much that we expect too much work of young scholars as that we expect of them the wrong kind of work; we demand of them abstract thought and statement, when we should ask concrete doing; we are trying to make acute analysts out of material that is specially adapted to make apt, quick, and skilful performers; we sacrifice the grand possibilities of childhood in a premature attempt to realize the possibilities of later years, and, by so doing, greatly damage the chances of securing the desirable results of subsequent teaching. We are in great danger of underrating the value of the imitative power and inclination in children. The ability vividly to interpret language, especially language that deals with what is unfamiliar, is the product of large experience and considerable maturity; but children are quick to apprehend illustrations addressed to the eye. In teaching them, therefore, a little showing is often better than a great deal of telling. This principle is the root of successful teaching. Our pupils are allowed,

or rather compelled, to spend too much time groping in the dark,—always unsatisfactory, exhausting, and painful business,—when a little wise and kindly help would prompt to ready and cheerful activity. The valuable element in early education is the *doing* things, not the *pondering* or *reasoning* upon them.

That teaching which most prominently recognizes this, certainly produces the best results. Such teaching not only recognizes the individuality of the pupils, but tends to keep it unharmed; so does it give the fullest play to the individuality of the teacher. The results of this twofold economy are greatly needed in our educational work.



***HOW TO TEACH LANGUAGES SO THAT THE PUPILS
SHALL GAIN THE GREATEST AMOUNT OF KNOWLEDGE
IN THE LEAST TIME WITHOUT OVERWORK.***

METHOD AND DETAILS TO FIRST CASE.

Lesson I. This lesson is similar to the first Latin Lesson in the "Teacher" for November, 1873, with the addition that it comprises also examples on all case forms of nouns of the first declension singular. Here it is well to be very particular that the scholars see all the case forms of the same noun, for instance: *Domina bona est. Serva dominæ bona est. Serva dominæ rosam dat. Serva dominam amat. O domina! ubi es? Serva contenta est domina.* These examples, as well as most of those which I give at the beginning, may not be found in Cicero, but they answer my purpose much better than Ciceronian propositions. They are short, illustrate my points, and are correct. It is very hard to find a sufficient number of short classical propositions to aid in teaching at the beginning.

All the propositions given in this first lesson, as in all following lessons, must be studied in the following manner:—

1. Give plain English translation.
2. Read them in Latin. (I pronounce always every proposition when I assign the lesson.)
3. Give themes of all words in lesson. (Of nouns the theme is nominative and genitive singular.)

4. Inflect all inflectable words, giving English meaning for each form. (In first lesson decline all nouns in singular.)

5. Give English derivatives from all words from which there are any.

6. Etymology of Latin words.

This is the topic for every reading lesson. In proceeding I shall wish this to be understood, if I do not mention it any more. The special topic on —

I. Declension, is : —

1. Mark of declension (*æ* in genitive singular).

2. Nominative termination (*a*). (It is not essential to have the nom. terminations *e*, *as*, *es* in the beginning.)

3. Themes of all nouns.

4. Decline all nouns (only in singular for first lesson).

Lesson 2. 1. Declension of nouns plural in examples.

Present and imperfect tenses of *sum*, I am.

The verb is studied like the noun. The English is to be given for every person, and the attention of the pupils is directed to the six different forms of the Latin verb in each tense, which enables the Latin to leave out the subject, and gives freedom in regard to the position of the words in the proposition.

Lesson 3. Some more examples on first declension.

Second declension of nouns, singular.

Here I use the same propositions as in the first lesson, viz. : —

Dominus bonus est.

Servus domini bonus est, introducing new ones, ex. :

Vinum domino bonum non est.

It is hardly necessary to state why this is done. The scholars become very early acquainted with the rule of the agreement of the adjective with its noun, which is very important, as the adjective in English never changes its form. Here we learn that very many Latin adjectives have three terminations, — *us*, *a*, *um*, one for each gender, and are declined like nouns of first and second declensions. The pupils see that nouns of the first declension are feminine, those of the second declension are masculine or neuter. Exceptions are not considered till later.

Topic of second declension of nouns : —

1. Mark of declension (*i* in genitive singular).
 2. Nominative termination, — *us*
er
ir (*vir* the only word)
um
- } masc.
 } neuter.
3. Themes of all nouns.
 4. Decline all nouns. (Greek nouns are not considered now.)
- Lesson 4.* Plural of second declension.

Vocabulary of second declension.

Here I give some nouns of the second declension, and also some adjectives in — *us*, *a*, *um*. Using the verb *sum* in present and imperfect tenses, which have been studied before, propositions are formed to accustom the pupils to let the adjective agree. I use only nouns and adjectives whose meaning can easily be made out, viz. : —

campus	cancer	desertum	arduus	a	um
conus	caper	documentum	densus	"	
digitus	minister	exemplum	durus	"	
fluvius	magister	folium	plenus	"	
morbus	puer	votum	novus	"	
populus	ager	regnum	purus,	etc.	etc.

Lesson 5. Declension of adjectives in *us*, *a*, *um*. (Theme of adjective is the nomination of the three endings.)

Conjugate *ero* and *fui*.

Third declension of nouns, masculine gender, in examples.

The examples of this declension are to be very numerous, on account of the many terminations, but all embody at least nominative and genitive of the same noun, *ex.* :

Leo rex animalium nominatur. *Robur leonis* magnum est.

Lesson 6. Third declension of nouns, feminine gender, in examples.

Decline all nouns in singular and plural.

Conjugate *fueram*.

Study meaning of *esse* and *fuisse*.

Lesson 7. Third declension of nouns, neuter gender, in examples.

Here I give the following terminations only and in this way :

C-a-l-e-n-t-ar-ur-us. So they are easily remembered.

Exceptions in gender of this declension are studied later, and then only about thirty nouns in all.

The topic of the third declension is analogous to that of the second declension.

This finishes the inflection of nouns for the present. The fourth and fifth declensions are studied later, as they are less important and less used. The declension of adjectives of the third declension is practised together with the nouns, and that then finishes the inflection of adjectives. Now the pupils are ready for the thorough study of the regular verb and for beginning to read.

Lesson 8. Regular verb. Read Roman History Nos. 148, 149.

Here I assign the four conjugations at once. First we study the principal parts with their English meaning and note how they are formed from the root. For instance,

Pres. Indic. *mon eo*, I admonish.

Pres. Inf. *mon ere*, to admonish.

Pres. Pf. *mon ui*, I have admonished, or I admonished (once and not more than once).

Supine. *mon itum*, to admonish (an old infinitive).

Then we study the conjugation of the present tense of the four conjugations at once, noting the common terminations for the respective persons : —

1 singular, (*o.*)

2 " *s.*

3 " *t.*

1 plural, *mus.*

2 " *tis.*

3 " *nt.*

With the characteristic vowel of each conjugation before these terminations. In this way the four conjugations may be studied together in almost the same time as one alone.

Now I prepare the reading lesson, Roman History, Harkness' Reader Nos. 148, 149. I prepare this lesson very carefully in the class. How I do this I will show at some future time. I shall

now only give the contents of each lesson, having given the first eight lessons somewhat minutely, I write from my memorandum.

Lesson 9. Regular verb. Conjugate perfect.

Prepare Reader 150, 151, 152. Themes of all words in lesson.

Theme of verb I call principal parts.

Lesson 10. Regular verb. Conjugate pluperfect and future perfect, comparing them with *eram, ero, fueram, fuero*.

Pres. infinitive and perfect infinitive and tenses formed from them.

Reader, 153, 154, 155, 156.

Lesson 11. Decline pronouns *is, ea, id; qui, quæ, quod*.

Reader, 157, 158, 159.

Lesson 12. Decline *hic, hæc, hoc*. Reader, 160, 161, 162.

Lesson 13. Reader, 163, 164, 165, 166.

Lesson 14. Imperfect tense, ind. active. Reader, 167, 168, 169.

Lesson 15. Reader, 170, 171, 172.

Lesson 16. Future tense, ind. active of first and second conjugations. Reader, 173, 174.

Lesson 17. Reader, 175, 176, 177. Synopsis indicative of verbs of first and second conjugations.

Lesson 18. Reader, 178, 179. Third person singular and plural passive of present, imperfect, and future, by adding *ur* to the active.

Perfect passive participle. (Formation from Supine.)

Show how, with *sum*, the compound past tenses of the passive voice are formed.

Up to this time I prepared every reading lesson in the class. Thenceforth only very difficult passages are prepared; gradually the scholars have to prepare the lessons by themselves. A rigid drill of all inflections is continually kept up.

Lesson 19. Reader, 180, 181, 182.

I prepare last sentence in 180 and last sentence in 181; scholars prepare the rest at home.

Lesson 20. Reader, 183, 184. I prepare in 184. Hunc Fabricius . . . *averti* .

Present participle of verb.

Lesson 21. Reader, 185, 186. Scholars prepare henceforth the reading lesson themselves without aid from the teacher.

Future active of third and fourth conjugations.

Future passive of third and fourth conjugations, third person singular and plural.

Scholars are reminded again and again to study suggestions on page 99, etc., in Harkness' Reader.

In this way the study goes on. In the 32d lesson the Roman History will be finished. Besides this there will be studied :—

Future active participles and infinitives.

Present passive and future passive infinitives.

Future passive participle.

Principal parts of passive and deponent verbs.

Cardinal and ordinal numbers.

Fourth declension of nouns.

In twelve more lessons the Grecian History will be read. Besides this there will be studied :—

Perfect active subjunctive.

Formation of adverbs from adjectives.

Regular comparison of adjectives.

Present subjunctive of *sum* and of regular verbs.

Ille, idem, and sui, sibi, se.

Forms of inflection are drilled continually. Special attention is paid to the synopsis of the verb of any person. Sometimes all the infinitives active of a verb are called for, sometimes those of the passive, sometimes those of the active and passive, together with English meaning. So likewise the participles. I have not said anything of reviewing. It is understood that before one lesson is recited the previous lesson is reviewed. In examining this paper it will be seen that we have not studied the personal pronouns, except *sui, sibi, se*, because we did not see them used in our reading. Likewise of the passive tenses, only the third persons singular and plural have been studied, for the same reason ;

and so a great many things have been omitted in agreement with the principle, "Only what is necessary and when it is necessary."

SECOND CASE.

How to teach an illiterate adult in twenty-four lessons, to read and write his own language. A plea against the notion of some persons who think that if reading and writing are not learned in youth, they cannot be learned at all. The treatment of this case, which was under my care, will be shown in the next number of the *TEACHER*. By an illiterate person, I mean a person who can neither read nor write.

Before concluding, I wish to add one, to my mind, very important point. When the scholars come to the recitation room after their reading lesson has been studied at home, I always ask before I hear them recite, what difficulties each has found. Then I begin to lead them to find the solution of their difficulties. When no more questions are asked, we begin the recitation. This proceeding, I think, is nothing but justice. The pupil has a right to have difficulties explained which he cannot solve. On the other hand, it is of great assistance to the teacher; for in this way he finds out what is difficult for each individual of the class, and he can furnish the means of overcoming similar difficulties in the future.

F. H. K.

HINTS ON TEACHING SHAKESPEARE.

THE importance of thorough study of English literature in our High Schools is generally recognized. Any course in literature, whether long or short, would be defective, without some study of Shakespeare. Although every one recommends Chaucer, Milton, and Shakespeare, yet very few have made any systematic study in this direction. It is difficult to train one's self to close and critical study of any standard author, but especially difficult to teach the young pupil to be interested in Shakespeare. Most of his plays begin hard; the dialogue of the drama, the peculiar idioms, figures, and obscure references all tend to discourage the reader. All we may hope for is to inspire the scholar with a desire to continue the study begun in the school-room; even

this result will be attained only by a few, yet we believe that tact and skill on the part of the teacher will enable a class to read our dramatist with pleasure and profit. We hope the time will come when we shall take as much pains to study the English classics as the great authors of Greece or Rome. At present, we must be satisfied if we get even a few months for the study of our author.

Each scholar should be provided with a copy of Shakespeare; if the complete works cannot be obtained at home, for school use, the Globe Edition or Blackfriars' is the cheapest and best, while Dick's costs only half a dollar. If the complete works are not wanted, the separate plays as edited by Rolfe and published by the Harpers, or by Hudson and published by Ginn Brothers, are excellent and cheap. The historical introduction and notes in these little editions are valuable. The best editions for reference are Duyckinck's in three volumes, a very rare edition; White's in twelve vols., valuable for the *Essay on the Drama*, *Genius of Shakespeare*, notes, etc.; Hudson's also, edited with full notes. Abbott's *Shakesperian Grammar* is of the greatest value and assistance to the teacher and student.

Suppose we have a class ready to begin the study of our author for three months or more. First, we would be particular and begin with certain plays, for though *Hamlet* and *Lear* are the noblest productions in any literature, yet we could not expect the pupil to be interested in them as in others. We have found the *Merchant of Venice* to be the best to begin with, followed by *Julius Cæsar*, *Richard III*, and *Macbeth*. Suppose the class begin with the *Merchant of Venice*. Two or three days before reading the play, we would give two or more copies of Charles Lamb's *Tales* to two or more pupils, and require them to give orally the story of the play in their own words before the class. Let the class note down or remember the leading facts, and the teacher should then supply such historical or literary facts and incidents as would be interesting. Refer the class to Mrs. Jameson's beautiful *Essay on Portia*, and if access to a library can be obtained, assign a different book to each member of the class. Let one read essays on the play by Giles; another, Whipple; a third, Coleridge; and so on through the class. If

each one will read from these great critics while studying the play, and bring the result of their reading before the class, the text will prove more interesting, and hidden beauties will be noticed, never before imagined. In many of the plays, especially in the comedies, some scenes may be wholly omitted, and thus leave more time for the more important passages.

The particular method of studying the text itself must depend upon the skill and knowledge of the teacher. It is no easy matter to carry a class through a play ; but if many explanations and practical hints are given and beautiful passages alluded to, the pupil will soon learn to read critically, and gradually appreciate the words of the great author. While this method is pursued with other plays, other exercises can be used with profit. For instance, we have given Price's *Wisdom and Genius of Shakespeare* to the class, and let each one select (the book has an index in full) the passages illustrative of love, and read them before the class. Pass the book to the next, and take up as the time permits, ambition, jealousy, death, dreams, friendship, the best descriptions of the ocean, sunrise, moonlight, etc. In the same way, we have used a little book (compiled by some unknown author) with religious and moral passages from Shakespeare on one page and parallel references to the Bible on the other. Select only well-known and familiar passages, and the exercise will prove interesting. We perceive at once that our author was thoroughly familiar with the Holy Writ, and that his mind was imbued with the sublimity and hallowed character of the sacred writings. This and other studies in English literature show to what a remarkable extent the phraseology of the Bible has penetrated, colored, and shaped our mother-tongue.

As miscellaneous exercises, we always require essays on the most famous characters, — as Portia, Shylock, Juliet, etc., — giving the marked characteristics of these characters, and filling in appropriate quotations. These and other quotations should be thoroughly committed to memory. When the class have read Shakespeare for a number of weeks, we have prepared a game of "authors," from the well-known characters, and encouraged the scholars to play this game at home, thus impressing the names on the memory.

For another exercise, let each one in the class select famous

lines beginning with each letter of the alphabet, read them before the class, and then commit to memory.

For instance : —

“ Angels are bright, though the brightest fell ; ”

“ Beggars, mounted, run their horse to death ; ”

“ Calumny will sear Virtue itself,” etc.

By all means, use a complete edition of the author rather than any “expurgated” copy, “Beauties,” and “Selections for Schools.” The complete works in fair print and binding, costing \$1.50, is preferable in every respect to any mutilated edition. A few words of common-sense explanation from the teacher will do away with any false notions of the many so-called “vulgar” expressions. The study of Shakespeare and many other authors should be prefaced with remarks on the language employed and the times in which the writer lived. Scholars should be taught that beneath the bewitching words of Byron, Moore, and Swinburne may lie concealed the poison which pollutes the mind, rather than the plain and homely Anglo-Saxon used in Chaucer, Shakespeare, and the Bible. Such objectionable passages can be easily omitted in class reading, and would be preferable to a mutilated edition.

We rejoice that the study of the great dramatist is taking its proper place in all our courses of study. Years ago, when books were scarce, many great and good men were indebted to Shakespeare for their command of English. Burke made Shakespeare his daily study, Erskine and Fisher Ames committed to memory large portions of the same author, while Rufus Choate was familiar with every line of his writings. Webster made a special study of Shakespeare and the English Bible, and Curran, the great Irish orator, recited the great dramatist before his mirror ; while Bowditch the navigator, Dr. Arnold of Rugby, John Q. Adams, and Lincoln were life-long students of the great English classic.

“What a study may be made of Shakespeare alone,” says Sir John Coleridge, “by any one who will devote his mind to him reverently and carefully. From the *Passionate Pilgrim* and the *Sonnets* to *Lear* and *Hamlet*, the observation of the variety and advance, in a style always admirable, up to the splendor and consummate beauty exhibited in the later plays, is alone a study for a life.”

A. F. BLAISDELL.

Provincetown, Mass., April, 1874.

VERMONT DEPARTMENT.

REV. H. T. FULLER AND J. C. W. COXE, EDITORS.

EDITORIAL NOTES.

OUR friends have been very kind in promising us articles for future numbers. May we remind them that our pleasure would be greatly enhanced by the speedy sight of some of these "promissory notes" for which we have been so patiently waiting? We desire to give variety to our columns, and hope we may have the general co-operation of all the friends of education in the State. We have not yet been troubled by an *embarras du richesse*: give us an opportunity for selection from a generous store of contributions. Articles and items of general intelligence designed for the July number may be sent to Rev. H. T. Fuller, *not later than the twelfth inst.*

WE have received a copy of *The School Record*, dated "St. Albans, Vt., March, 1874,"—a neatly printed and well-edited sheet, full of matters of interest to the patrons of the St. Albans Schools. The *Record* is designed to give, in a suitable form for reference, the statistics of the schools, and to afford a medium for the discussion of topics of interest as related to the public school system. It is designed to be a "regular irregularity" as to the date of its issue, but proposes to drop in upon its friends as it may be convenient, or agreeable, or useful. We are certain the bright visitant will find warm welcome, and prove a valuable auxiliary in awakening a more general and intelligent interest in the work which is being accomplished in the school-room.

THE State Normal School at Castleton has fifty-three students in attendance the present term. The graduating class numbers thirty,—twenty-four in the first, and six in the second course. The aggregate attendance for the year is two hundred and eleven. There has been a steady gain in the numbers in attendance since the school was fairly started, and the number this year is thirty per cent above last year. Rev. R. G. Williams is the efficient and popular principal.

GENERAL INTELLIGENCE.

FEMALE SUPERINTENDENTS.—The following ladies now occupy positions as Superintendents of Schools in this State : —

Miss Jerusha B. Amsden, Norwich, Windsor Co.; Mrs. Clara J. Bond, Searsburgh, Bennington Co.; Miss Lucia Camp, Stowe, Lamoille Co.; Mrs. J. A. Child, Weybridge, Addison Co.; Miss Emma J. Graham, Winhall, Bennington Co.; Miss Adelia M. Hall, Stamford, Bennington Co.; Mrs. E. M. Ellis, Huntington, Chittenden Co.; Miss Mary Ann Pomeroy, Franklin, Franklin Co.

CHITTENDEN COUNTY.—At a meeting of the County Teachers' Association, held at Charlotte, Oct. 24 and 25, 1873, a committee, representing the Teachers' Association of Franklin and Grand Isle, proposed a union of their association with that of Chittenden County. In response to this proposal the Chittenden County Association, after some deliberation (necessarily brief at that time), decided that further time was needed for consultation with the teachers of the county. The Association appointed a Committee of Conference and passed the following resolution : —

"*Resolved*, That we cordially invite the Teachers' Association of Franklin and Grand Isle Counties to meet with us at our next annual meeting, and that our Committee of Conference convey to them this invitation."

BURLINGTON.—Two large and commodious brick school-houses are now in process of erection, at a total cost of about \$30,000, exclusive of grounds. They are built according to plans furnished by Secretary French. They will afford ample accommodations for two hundred pupils each, and will be ready for use at the opening of the schools in the fall.

Miss Sara M. Schoonmaker, for the past three years first assistant teacher in the High School, and for many years previous, teacher of mathematics at Leicester, Mass., has been compelled by ill health, to relinquish the duties of teaching for the present.

Miss Myra B. Richardson, formerly teacher in the High School at Fitchburg, Mass., is now engaged as assistant teacher in the Burlington High School.

Miss Florinda E. Williams, late principal of Pine Street Primary School, now has charge of the Training School at Indianapolis, Ind.

ESSEX.—A new school-house for the graded school at Essex Junction has recently been completed at a cost of about \$6,000.

The Essex Classical Institute, for many years a leading academical institution in this part of the State, has suspended operations for the present.

ST. ALBANS.—There have been a few changes of teachers. Mrs. C. M. Allen resigned at the close of the term. Her place has been filled by Miss S. A. Currie, a teacher of this town, who has had considerable experience, and who has met with good success. To Miss Haight has been given the charge of Room 2 in Elm Street School. Miss Kimball, who was formerly connected with the school, is her assistant. Miss Ella E. Holcomb, of Starksboro', has been engaged as assistant to Mrs. F. A. Booth. Miss Hayes has

been placed in charge of Room No. 2, South Main Street school. Miss Lyon, who has served so well and satisfactorily as teacher of music, has resigned. Miss Franc A. Parsons, of Clifton Springs, N. Y., has been engaged to take her place.— *The School Record*.

NORTHFIELD.— The anniversary exercises of the graded school occurred on Friday evening, May 15, when the "first fruits" were gathered in the graduation of four young men, who had successfully completed the prescribed course of study. After singing by the Glee Club, and prayer by Rev. Mr. Eastman, an address was delivered by Prof. J. C. W. Coxe, of Montpelier, and three of the young gentlemen composing the class pronounced their orations in a very creditable manner. The diplomas were conferred by Rev. Mr. Hazen, chairman of the Board of Directors, who prefaced the award with a neat and appropriate speech.

An unannounced feature of the programme was the presentation, from the school, of an elegant copy of Taylor's Goethe's "Faust," to the popular principal, A. R. Savage,— a choice gift, which appeared to make both donors and recipient happy.

The annual catalogue of the graded school, just issued, shows an enrolment of twenty in the classical and college preparatory course; fifteen in the ladies' classical course; eighteen in the High School; seventy-six in the Grammar School; eighty-five in the second, and eighty-nine in the first Intermediate department; and one hundred and sixty-four in the Primary department. Total enrolment, four hundred and sixty-seven.

MONTPELIER.— Rev. Franklin Tuxbury, of Brandon, delivered an admirable address before the "Ladies' Literary" Society, of the Montpelier Seminary, at the close of the spring term, April 29, on "Earth and Man." The wonderful adaptations of the physical conditions of the earth to human needs were set forth with great clearness and beauty.

Prof. G. G. Bush, after six years of efficient service in the Seminary at Montpelier, resigns his position, and intends to spend the ensuing two years in Germany, pursuing his studies in linguistics and philology at the Heidelberg University.

WATERBURY.— Mr. Phelps retires from the labors of the school-room at the close of the present term, leaving the graded school, which has been under his charge the past three years, in a flourishing condition. Mr. Phelps is an able and successful teacher, and we hope his retirement may be but temporary. Vermont can ill afford to lose him from her teaching force.

Mrs. Phelps has been ill for some weeks, and meantime her place in the school-room has been very acceptably filled by Miss Minnie Copeland.

WATERBURY CENTRE.— The Green Mountain Seminary was closed at the middle of the Spring term, for want of patronage, it is said. The principal, Rev. R. H. Tozer, has accepted a call to the pastorate.

WATERBURY.— Rev. J. Copeland, pastor of the Congregational Church, and the efficient Superintendent of Schools, sailed from New York on Thursday, May 14th, for a three months' run in Europe. Dr. H. Janes, of Waterbury, accompanies him. We wish our friends a delightful visit and a safe return.

RESIDENT EDITOR'S DEPARTMENT.

WHY IS IT?

It is an established principle of political economy that "the demand regulates the supply." Now it is well known that at the present time, there are some very valuable works on pedagogy, — such as every one engaged in teaching or in any department of education would be benefited by studying; it is known, too, that most of these works are foreign, — chiefly German, and available to the mass of teachers only through translations and republications. In some of our Western cities, especially Cincinnati and St. Louis, we are glad to see that publishers are issuing these books.

How does it happen that the Western press has almost a monopoly of them? Is it another illustration of the law of demand and supply?

It certainly shows, either that Eastern publishers are less enterprising than Western, or that Western teachers have created a demand for them, which does not exist among Eastern teachers.

What shall we say? Whose fault is it — that of publishers or teachers? May not the fact that Western journals of education are so much better patronized than Eastern throw some light on this subject? We commend this question to the five or six thousand teachers of our State who are not sufficiently interested in the subject of education to take their own State journal.

Is it because it is not interesting or valuable? Well, as we write comparatively little for it, we may say that every number contains articles from the best teachers and educators in the State, — those recognized as such, — and occupying the highest positions in our Normal, High, and Grammar Schools, and as Superintendents.

Is it that so many of our best educators write articles of no value or interest; or that so many of those calling themselves teachers have no interest in their calling? We hope that school committees, before making appointments, will inquire into this, believing as we do, that it will be found quite as good a test of *qualification* as the usual examination.

No one possesses the *necessary qualifications* for teaching, — whatever amount of learning he may have, — who is not constantly seeking, by all the means in his power, more light from the thoughts and experience of others.

THE NATURAL AND PHYSICAL SCIENCES IN OUR GRAMMAR AND HIGH SCHOOLS.

[A paper read before the Middlesex County Teachers' Association by C. A. Cole.]

IN the paper which I have the honor to read before the members of this Association, I purpose to consider very briefly the Natural and Physical

Sciences with reference to our public schools, enumerating some of the subjects pertaining to these sciences which may be studied with success and satisfaction in our grammar schools, and making a few suggestions with reference to their consideration in our high schools.

"Public instruction should be the first object of government," said Napoleon; and it was Burke who wrote, "Education is the chief defence of nations." Our State provides most beneficently for the education of her youth. This is well. The strength of the government is directly dependent upon the intelligence and morality of the people; hence it is the duty as well as the interest of the State to educate the people, in order that crime may be diminished, industry promoted, and wealth and happiness increased.

The chief end of a system of public schools supported by the State, is to make good citizens; not to make smart boys and girls, whose precocity gratifies most unwarrantably the vanity of parents and friends; not to enable the youth to make a brilliant appearance in society; not to impart the secret of acquiring wealth, but simply, in the widest and truest sense, to make good citizens.

It is not the function of our public schools to graduate theologians, professional teachers, skilled artisans, accomplished accountants or scientists. The limit of obligation to provide public instruction on the part of the State, extends no further than the high school. Those desiring the advantages of a collegiate or technical course of instruction must meet the required expense without public aid.

Our common schools are to furnish the education of the masses. The condition and usefulness of the citizen must depend largely upon the kind and amount of education received at school. How immeasurably great the responsibility assumed by all controlling or directing the educational interests of the State!

It is a well-recognized fact that the results attained by those graduating from our schools are not at all commensurate with the money, time, and energy expended. As teachers, we are not satisfied with the work actually accomplished. How shall the difficulties which prevent the attainment of more satisfactory results be removed?

This is the great problem which it is our privilege, as teachers, to aid in solving. What shall we do for our pupils in order that they may develop into good and useful citizens? How teach them to believe that to labor is most honorable? How teach them to think and act for themselves,—to judge correctly? How teach them to study? How to obtain useful and valuable knowledge? How to acquire such a use of language that they may express accurately their thoughts? These, certainly, are most practical problems. Evidently, the right method to be employed in their solution must be the natural one; any other must be illogical, and result unsatisfactorily. Therefore, in the case of our younger pupils, special reference should be made to the condition of the perceptive faculties as compared with that of the reflective. More attention should be given to the concrete, and less to the abstract. If, now, we observe also the principle of "*things before names, and ideas*

before words," we are prepared to favor the proper study of natural objects and phenomena as pre-eminently suited to meet the requirements of the case as we have stated it.

In this way there may be afforded the pupil an excellent means of discipline and culture, unsurpassed opportunities for exercises in generalization and classification, also frequent and suitable occasions for the right use of language, and for learning facts and truths whose utility all will concede.

It might be interesting and profitable in this connection to discuss these topics with reference to the natural and physical sciences, but time and opportunity will not admit of any extended consideration of them. I will briefly refer to the subject of language and grammar as related to these sciences.

Language should receive prominent attention throughout the school course of the pupil. Occasionally it is our experience, as teachers, to meet pupils whose use of language is very ungrammatical, and yet who have the ability to parse and analyze sentences in the most approved manner. There are others, also, whose home associations afford them most favorable opportunities for the acquisition of good English, and whose efforts at grammatical analysis and parsing are most unsatisfactory, alike to themselves and their teachers.

I would have the study of the elementary principles of science made the basis of early instruction in language and grammar, both by conversation and by oral and written descriptive exercises.

Let the pupil examine a botanical or a mineral specimen; let him write down its various physical properties as he observes them, teaching him to use correct terms. Then let him perform a simple chemical experiment, requiring him to note carefully the various processes, and to describe accurately to the teacher what he observes and does. The child thus gains a most valuable personal experience which he is taught to use in the acquisition of language. Since grammar is the science of language, the pupils may acquire the facts pertaining to language in the experimental way indicated, and then classify them according to the direction of the teacher.

Frequent exercises of this kind, continued for several terms, would enable the scholar to obtain a more practical knowledge of grammatical principles in a natural and systematic manner, than is possible in a much longer time by the method usually employed. Thus it may be seen how the proper study of the natural and physical sciences may not only secure to the scholar valuable knowledge, but also serve as a most efficient educating force.

It is not necessary that expensive and elaborate apparatus be employed for the demonstration of the elementary principles of natural philosophy and chemistry. By the aid of an alcohol lamp, a small quantity of rubber and glass tubing, some stoppers, a few bottles and test-tubes, to which may be added a funnel and some filter papers, very many valuable and highly interesting experiments may be performed.

A very efficient balance may be cheaply constructed, having a small bar of wood for the scale-beam, and circular pieces of tin for the scale-pans. It

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will be most profitable for the child to experiment until he shall have acquired some skill and accuracy in weighing, — using, at first, Troy weights. He may obtain saturated solutions, and ascertain the relative degrees of solubility of lime, potash, soda, sugar, salt, etc., becoming practically familiar also with the properties of hard and soft water. Let him compare the weight of a small volume of water with that of the same volume of each of these saturated solutions, just specified. The pupil can learn early and intelligently many of the physical and chemical properties of air and water.

Before he leaves the grammar school he should be somewhat familiar with the properties of oxygen, hydrogen, nitrogen, carbon, and carbonic-dioxide. He should be able to find the specific gravity of the more common minerals, and identify them, knowing their properties, and understanding, to some extent, their natural history and uses.

Suppose the pupil has for examination a specimen of quartz, an exceedingly common and widely-distributed mineral. He will be enthusiastic in observing its color, form, appearance, relative hardness, and other general and specific qualities, — in ascertaining its absolute weight and that compared with the same bulk of water, — in considering its uses in the arts and in the economy of nature.

Let us dwell for a moment upon the last point — its use in the economy of nature. Suppose we have procured a small quantity of grass, a wisp of straw, a few pieces of bamboo, or rattan, if more convenient. Every schoolboy knows the effect of drawing a blade of grass slowly through the mouth in different directions. Observe, now, with the aid of a magnifying-glass, the serrated edges of the grass-blade ; notice the glistening appearance and comparative strength of the straw due to the presence of the fine particles of quartz ; notice also its form of structure and its adaptability to sustain the head of wheat. In this connection, illustrate, by experiment, how quartz may be deposited or precipitated when chlorhydric acid is added to a solution of sodium silicate ; wash and dry the precipitate obtained, and mark the purity and fineness of the quartz or sand thus produced.

The pupil can readily associate the separation of the fine sand from one of its compounds in solution with its deposition in the grass, straw, rattan.

If we add a minute quantity of manganese binoxide to a small piece of borax while fused, we are able to reproduce very nicely the different shades of amethyst, one of the most beautiful varieties of quartz. Several lessons may be very profitably devoted to the study of the mineral quartz alone.

Nature affords a most abundant supply of specimens for the study of mineralogy, botany, and entomology.

The pupil should study the plant by the aid of the book, instead of the book by the aid of the plant.

The common cat may serve as a topic of conversation. In studying its characteristics, much may be learned respecting the natural history of the puma and the leopard, — the tiger and the lion. The teacher may call atten-

tion to the feet and teeth of the dog, and compare them with those of the fox and wolf. The pupils may be allowed to narrate anecdotes illustrating the general habits of animals.

But little encouragement is needed to enable the pupils to make collections of insects illustrating the different orders. A valuable and inexpensive cabinet of specimens may be easily procured in a single season.

Let the pupil study a specimen of limestone. In considering its composition, reference may be made to the valuable aid which the microscope affords. What does the presence of shells teach? In this connection refer to the vast limestone rocks of the West, the chalk cliffs of England, and the gypsum beds of France.

In the high school very much can be done in connection with the sciences, from which the pupil may derive most practical benefit after completing his school course. Chemistry is an experimental science. In studying this subject, much attention should be paid to laboratory practice; in fact, hardly any real progress can be made without it. If this branch of science be properly considered, it will afford the teacher most effective aid in securing habits of thought in his pupils, and in enabling them to exercise their ingenuity in the construction and adjustment of apparatus for different methods of illustration. The pupil may take a systematic course in analysis after he has become experimentally familiar with the manipulation of the different gases usually considered in pneumatic chemistry, and has examined carefully the physical and chemical properties of the different elements, and their most important compounds usually studied in connection with our text-books of chemistry. Let the pupil obtain a silver coin, taking a definite portion of it by weight; let him precipitate the silver as a chloride; eliminate the copper by filtration; dry and carefully weigh the chloride, and compare the per cent of silver present with the theoretical amount in the portion of the coin examined. Or the teacher may prepare some argentiferous lead, and allow the pupil to ascertain by cupellation the per cent. of silver present. In this connection the pupil may be informed of some of the methods actually employed by the chemist in assaying; and also how the more important metals are obtained from their ores.

The pupil should be required to note carefully the results of his experiments, and write an accurate description of them according to his own experience. He should be encouraged to exercise originality in illustrating, by a variety of methods, the principles he has learned. Many lessons may be devoted to the consideration of chemistry as related to vegetable and animal physiology. The pupil is supposed to have become somewhat familiar with the elementary principles of botany before leaving the grammar school; it is the work of the high school to supplement "the knowledge already acquired," by further consideration of the subject.

The pupil learns that nature needs but few forces, and requires but a limited number of elements to produce results infinite in number and marvellous in character. Heat, light, electricity, chemism, are the forces; oxygen,

hydrogen, nitrogen, carbon, etc., are the elements. In fact, nine tenths of all the vegetable products are constructed from the four we have specified.

The pupil will find it profitable and interesting to learn about the chemical changes that take place in the germination, growth, and decay of the vegetable, and thus become better able to understand how plants growing in the same soil, influenced by the same sun, rain, and winds, develop elements possessing properties differing so widely.

The pupil should be encouraged to plant corn, beans, and other seeds, and to note the changes that occur during the periods of growth.

A variety of experiments may be made according to the direction and suggestion of the teacher, with reference to the conditions of favorable development of the plant.

Water performs a most important work in dissolving the solid matter of the seed, overcoming, by its mobility, the inertia of the particles of matter, preparing the way for a change of form, a re-arranging of the atoms.

Heat is necessary to a certain degree, and to some extent the seed has the power of generating it within itself. During the process of germination there is an oxidation of a portion of the atoms of carbon; that is, combustion occurs, and this produces heat. The product of the combustion is carbonic dioxide.

Air must furnish the oxygen to the molecules of starch in the seed, in order that it may germinate. The seed is not able to decompose the water for this purpose.

Light is not favorable to germination, since it deoxidizes the carbonic dioxide; but when the plant enters upon an independent existence, light is an important agent in supplying the plant with carbon and liberating oxygen.

The teacher may refer to experiments illustrating the union of carbon with water in various proportions, to form a very large number of vegetable compounds.

It is a profitable study to trace the chemical conversion of starch into sugar, and, when the true leaves appear, of sugar into woody fibre; to consider the function performed by the sap and the leaves, and, in general, to observe the practical applications of chemistry to the various changes undergone from the sowing of the seed to the decay of the plant; but time forbids that this illustration be extended.

The value of the sciences as related to the arts and manufactures is too well known to need special reference in this connection. It is eminently appropriate that subjects of such a practical nature, involving so much that pertains to the welfare of the community, should receive attention in the high school.

I have made no reference to the æsthetic claims of the natural and physical sciences; they are many, and well worthy of our consideration.

If from early youth the pupil receive the benefit of thorough instruction in language and the sciences according to the plan suggested, his ability to appreciate Virgil's graphic description of the storm will in nowise be lessened, and the study of the English classics will have for him new attractions.

There arise great questions of vital importance to the State and the country; they cannot be put down nor cast aside. As teachers and educators, we must aid in answering them.

The resources of our country are becoming wonderfully developed, — railroads are to be built, mountains are to be tunnelled; the commercial, mechanical, mining, and agricultural industries are making imperative demands for the diffusion of scientific knowledge. The question of the relation of the natural and physical sciences to our school system of education is a most important one; and I am firmly impressed with the belief that many of the perplexing problems with reference to educational subjects will find ready solution when these sciences are assigned their places in the common schools and are there properly considered.

C. A. C.

SPELLING IN OUR PRIMARY SCHOOLS.

Now that agitation on the subject of *over-study* seems to be in the ascendency, and our numerous friends are more than willing to grasp the opportunity in favor of lessening the so-called ills and burdens of our grammar and high schools, we think it but fair that a word should be advanced on the side of our little primarians, whose grievances are, at times, oppressive, and who are obliged to suffer in silence, from an inability to plead their own cause. We are, of course, aware that the minds of little children, from their plastic nature, are capable of receiving many and strong impressions; but the gentleness and systematic care with which these are presented are the only guarantee of the indelibility of their effects. Endeavors to overestimate a child's ability, and to second it by a process of overcrowding, is detrimental to the growth of his mind, and forms an insecure foundation for the after-structure of a firm and solid education. We do not pretend to say that the programme of studies submitted for the primary schools is beyond the power of a teacher to execute; not at all. Interested and animated teaching is the soul of education, and she who is alive to her work will meet with a cheerful response to her demands. The question is not whether a child can learn a given task in a given time, but whether he can learn it with understanding sufficiently clear for his memory to retain. So far as the simple mastery of a requirement, for a time, is concerned, we have nothing discouraging to say. With a thorough course of drilling he can commit a Greek sentence, if it be desired, without even a knowledge of its significance or analysis; but if, after a lapse of time, its repetition be demanded, we fear that his treacherous memory would refuse to act in compliance with the demand. Of course we are speaking of the child of average intellect; we do not here take into consideration those whose meagre intellectual endowments lead them almost to the verge of stupidity; a vast amount of patience and submissive good nature will assist us in the discharge of our duties towards them, and no remorse of conscience should attend discouraging results. An exercise where the child's reasoning powers are called into use is pre-emi-

nently the most valuable and satisfactory ; but that which is subject to mere memorizing is frequently a labyrinthine mist, out of which no thread of explanation is sufficiently powerful to lead him. This is of course obvious when we consider the spirit of inquiry which is the natural characteristic of his mind, and which precludes the possibility of his acceptance of any assertion on mere faith. His persistent "why" and "wherefore" manifest themselves on all occasions, and only that which is truly explanatory will suffice for reply. Persons of mature years are sometimes content with the superficial appearance of a thing, a child never ; it would be unnatural and not childlike, if he did not seek to know its every attribute, its origin and fate. But here let us speak of our subject,—spelling. It is an indisputable fact that much of the English language is a conglomeration of many unnecessary letters in many unnecessary ways. Why *cough* should represent *kof*, *ache*, *ake*, *colonel*, *kurnel*, and *kiln*, *kil*, we cannot comprehend ; and yet we are victimized by arrangements so arbitrary that we are merely obliged to submit. Where is the shadow of reason in such combinations ? Advanced years can recognize none : how, then, can the little child be asked to perceive ? That *cheap* should spell *cheap*, whilst *sheep* spells *sheep*, is rather mystifying to his inquiring mind ; and in the same spirit he puzzles over *chair*, *chair*, and *dare*, *dare* ; for he cannot imagine any lawful reason for a change of letters in the expression of similar sounds in different words ; but these are diminutive annoyances compared with those he has yet to encounter. Can it be the unbounded respect or gratitude we owe to the original writers of our language which necessitates the retention of their alphabetical eccentricities ? It may be so. We cannot imagine how any person could compile a speller in such a manner as the one before us, and label it *Primary Speller*. It does not seem possible that such a person could have had much, if any intercourse, with the minds of little children. Let us look at it. In the first part of it, we do not intend to find fault with the collection of words : with the order of arranging we do ; but of their order it is not necessary here to speak, for it is a difficulty which can be remedied with a little care. It is our humble opinion that the words in the latter part of the book are not suitable as lessons for those without the walls of a grammar school ; experience has proved it to us ; and no matter what amount of energy has been exhausted on them, we have always found that a return, for the purpose of review, is but a repetition of the original labor expended in their study. It is not necessary to illustrate by selections of words ; our readers, undoubtedly, have access to these Spellers, and a mere glance at the pages will suffice for observation. The words which these pages embrace are objectionable, not only from the difficult combination of letters, but many of them from their length. Of course we do not presume to say that these are words of extreme length ; but that they are long for a primary school, we think will not be denied.

So far we have said nothing about the "Words alike in sound but differing in meaning." But if little children in a school-room are ever objects of compassion, it is when they are endeavoring to wind their way through these.

Aside from the difficulty of learning two, three, and even four words pronounced alike, but spelled and defined differently, in order to discriminate they must submit to the martyrdom of mastering the accompanying definitions; and no amount of ingenuity in explanation and illustration will suffice to make many of them clear enough for their comprehension. Not a great while ago we examined carefully this same spelling-book, and became fully convinced that it contained much which should be cancelled from the programme of the primary schools. From the last twenty-five pages we selected eighty words, of more than moderate difficulty; dividing these into four columns, of twenty words each, we sent them to the third, fourth, fifth, and sixth classes of a grammar school in our vicinity, in order to ascertain the result of an examination, and thereby make a satisfactory comparison. Through the courtesy of the teachers, who complied with our request to examine, the results were received the following day: they were respectively 52, 48.5, 42, and 39 per cent. You will please observe these per cents, and remember that they are the results of an examination of the work required of the second and third classes of the primary schools. It is very strange, and yet we hold that an examination of grammar school classes in primary school work should never average lower than 90 per cent. In this case how far short of that! You will say, perhaps, that such results are the consequence of the length of time which had elapsed since the grammar classes came in contact with these words, — supposing, by this, that they had seen nothing of them since promotion from the primary school, — but such is not the case. By a subsequent examination of the Speller used in the grammar schools, we found every word which we had selected from the primary text-book. Now, this being a fact, how is it possible to expect little children to master the difficulties under which older ones are compelled to yield?

But we will pause here, with the consciousness that no exaggeration has interfered with the expression of our ideas on this subject; and we hope that hereafter, in the agitation of school annoyances, a share of the compassion will be bestowed in every deserving direction; and that something may yet be done to make of spelling in our primary schools a more interesting, animated, and progressive study than has been its fate through past years.

M. G. A. T.

THE following letter, from Dr. Hill, which contains many interesting and instructive suggestions, was received from James M. Barnard, Esq., Treasurer of Teachers' and Pupils' Fund for the Agassiz Memorial. Dr. Hill was a very dear friend of Prof. Agassiz, and accompanied him on the Hassler expedition.

PORTLAND, MAINE, May 11, 1874.

MY DEAR SIR, — My acquaintance with Agassiz began in the Autumn of 1848, and during the next two years he was frequently at my house in Waltham, and made collections with me in the country around the village. One day, as we were walking together in a field, we came upon a fragment of bone, left apparently by some dog from a neighboring house. I was passing by it

without attention, but Agassiz picked it up and saw two spiders clinging to its under side. "There!" said he, as he transferred the spiders to a bottle of alcohol, "that shows us that no object is so trivial as not to repay you for looking at it. Who would have thought to get two genera of spiders from an old piece of mutton bone?"

We returned one day from our ramble, with several frogs and snakes tied up in a handkerchief with a couple of spotted turtles. Mrs. Hill asked him if he thought the frogs liked their company. No, he said, he was afraid they did not find it very agreeable. He took the turtles out and transferred them to a water-pail, and set them in the kitchen. Our servant-girl—newly arrived from the North of Ireland, and who had been greatly delighted, a few days before, to hear Agassiz describe, in a public lecture, the Irish mollusks which she had herself gathered in her childhood—looked at these novel monsters with an "admiration not unmingled with awe." While we were at dinner she came in, with breathless horror, and whispered to Mrs. Hill that one of those black things was creeping into the fire. Agassiz overheard, excused himself, and ran to save his tortoise. I followed, just in time to see him push aside the reflector from before the range, and dive in after the reptile, which was not injured. He said he understood the girl's terror; he had never seen a living tortoise himself until his arrival in America.

I showed him, one evening in October, 1848, a card on which were drawn, in water colors, many insects indigenous to Holmesburg, Penn. Among them was the *Ploiaria brevipennis* of Say. It was new to him, and he eagerly questioned me concerning its habitat and habits. As we were afterward walking up to Rumford Hall, he said, "You have spoiled my lecture for to-night." "How so, sir?" I asked, in some surprise. "I cannot lecture for thinking how that creature can fly." He thought it was not properly classed with *Ploiaria*, but was a new genus, nearer to *Hydrometra*, as I understood him, and wanted to know if it was in Waltham. I told him that I had seen one specimen two years before; and it was arranged that he should come the next day, with boxes and pins, and I would guide him in a search for them. When he came I was so fortunate as to lead him to a shed where we found a great abundance of fine specimens. As I saw the great pleasure which he had in collecting them, I said I hoped it was not irreverent to say I was thankful that I had succeeded in finding them for him. "Irreverent!" exclaimed Agassiz. "If a man is not thankful for finding a new genus, for what could he be thankful?"

I frequently tested him, for the benefit of some of my incredulous friends, by showing him a few loose scales from a fish, and he never failed to name the genus at sight, and usually the species. I was interested to know why the smelt of my native Raritan were so much superior to those of my adopted Charles; but Agassiz declined to give a positive opinion concerning their specific identity from a mere comparison of loose scales. I therefore procured a box of smelt from New Jersey, but found the Professor had gone to Florida. I put, therefore, a few into alcohol, and gave the rest to "the heartiest of Greek Professors," who agreed with me in thinking them vastly supe-

rior in flavor to the New England fish. When Agassiz returned, I carried him one bottle containing the Raritan, and another containing the Charles River smelt. He took a fish in each hand, looked carefully at them in the face, on the back, on the belly, on the sides, from the tail end; and finally said, "I am more sure they are different fish than if I had made them myself." I thought it a fair illustration of the caution with which he observed all the facts before giving an opinion, and the consequent strength of his opinion when the facts had forced it on him.

With great respect, very truly yours,

THOMAS HILL.

JAMES M. BARNARD, Esq., Treasurer, Boston.

NATIONAL EDUCATIONAL ASSOCIATION.

PEORIA, ILL., May 11, 1874.

THE fourteenth annual meeting of the National Educational Association will be held in Detroit, Michigan, on Tuesday, Wednesday, and Thursday, the 4th, 5th, and 6th days of August next. A cordial invitation has been extended to the Association by the Governor of the State, the Mayor of the city, the State and City Superintendents of Public Instruction, and the Board of Education of the city. The use of assembly-rooms for the sessions of the Association has been tendered by the city authorities.

The following is an outline of the programme for the meeting:—

GENERAL SESSION.

Report of the Committee on *Upper Schools*—the subject of Dr. McCOSH's paper last year. Rev. GEORGE P. HAYS, President Washington and Jefferson College, Pa., Chairman of Committee.

A National University. President A. D. White, of Cornell University, is expected to present the leading paper on this subject.

Sex and Education. It is intended that there shall be an opportunity for a full discussion of this subject by exponents of the leading views concerning it. Dr. EDW. H. CLARKE, of Boston, will present the first paper.

Of the evening addresses nothing definite can at present be announced, except that Hon. JOHN EATON, Commissioner of Education, is expected to deliver one of them.

DEPARTMENT OF HIGHER EDUCATION.

1. *The Elective System in Colleges and Universities.* Prof. A. P. PEABODY, Harvard College.
2. *Co-education of the Sexes in Universities.* Prof. J. K. HOSMER, State University of Missouri.
3. *University Endowments.* Hon. J. B. BOWMAN, Regent of the University of Kentucky.

4. *Classical Studies in Higher Institutions of Education.* Prof. JAMES D. BUTLER, Madison, Wisconsin.

5. *Plan of the University of Virginia.* C. S. VENABLE, Chairman of the Faculty of the University of Virginia.

DEPARTMENT OF NORMAL SCHOOLS.

1. *Report on the Actual Courses of Study of the Normal Schools in the United States, together with statistics relating to such schools.* JOHN OGDEN, Assistant Principal of the Ohio Central Normal School, Worthington, Ohio.

2. *What are the Essentials of a Profession? and what must be the special work of Normal Schools to entitle them to be called Professional?* LARKIN DUNTON, Head-Master of the City Normal School, Boston, Mass.

3. *Method and Manner.* LOUIS SOLDAN, Principal of the City Normal School, St. Louis, Mo.

4. *Training Schools in connection with Normal Schools.* Report by the Chairman of the Committee, J. C. GREENOUGH, Principal of State Normal School, Providence, R. I.

DEPARTMENT OF SUPERINTENDENCE.

Report of the Committee on *Uniform plan and form for publishing the principal Statistical Tables on Education.* T. W. HARVEY, State Commissioner of Common Schools, Ohio, Chairman of Committee.

DEPARTMENT OF ELEMENTARY SCHOOLS.

Several Problems in Graded School Management. Hon. E. E. WHITE, Ohio.

Language Lessons in Primary Schools. Miss KEELER, Cleveland, Ohio.
Dr. ARMSTRONG, Principal of the State Normal School, Fredonia, N. Y., is expected to present the subject of *Science in Elementary Schools.*

Complete announcements concerning programme, facilities for travel, hotel accommodations, etc., will be made as soon as possible.

A. P. MARBLE, *Secretary.*

S. H. WHITE, *President.*

AMERICAN INSTITUTE OF INSTRUCTION.

THE meeting of the American Institute of Instruction will be held this year in Arnold Hall, at North Adams, on the 28th, 29th, and 30th of July.

Board at Arnold House, \$2 per day, Richmond House, \$1.50, and at Bal-lou House, \$1.50.

Ladies wishing free entertainment will please communicate with some one of the following Entertainment Committee: A. P. Potter, F. P. Brown, J. Rockwell, A. D. Miner, Miss Stella M. King, Miss A. M. Veazie.

INTELLIGENCE.

PERSONAL.

JOHN D. PHILBRICK, Esq., for seventeen years Superintendent of the Schools of Boston, tendered his resignation, May 13, in the following note to the mayor :

"CITY OF BOSTON,
DEPARTMENT OF PUBLIC INSTRUCTION,
SUP'T'S OFFICE, CITY HALL, May 12, 1874." }
"To his Honor Mayor Cobb, President of the
School Board."

"DEAR SIR,— The time for the annual election of Superintendent of Public Schools being near at hand, I deem it my duty to communicate to the School Board, through you, my decision not to be a candidate for re-election. In that capacity I have had the honor to serve the city for upwards of seventeen years, and I never can sufficiently express my gratitude to the Board for having set me in a place where I could labor to so much advantage for that cause to which my life is consecrated. If I have accomplished less than I could have desired, I have at least tried to do my duty. My heart has been in the work. During the long period of my service, it has been my constant and earnest endeavor to help make the schools of our city equal to the best in the world. This has been the object of my ambition.

"In retiring from this service, I take great pleasure, and some degree of honest pride, in being able to congratulate the Board on the high excellence and well deserved reputation to which our system of public education has been raised, for to the Board the credit is chiefly due ; and imagination suggests for me no earthly vision in the future more pleasing than that of witnessing the continued progress and improvement of this noble system of schools.

"I beg the members of the Board to believe that I have not been insensible

to their kindness ; from the bottom of my heart I thank them for their long continued support, co-operation, and sympathy, and assure them of my best wishes for their prosperity and happiness.

"I gladly embrace this opportunity, Mr. Mayor, gratefully to acknowledge the courtesy and consideration which I have received from you, and to convey to you the assurance of my sincere respect and warmest regards.

"JOHN D. PHILBRICK,
Superintendent of Public Schools."

The last year has been particularly marked by the number of first-class men who have retired from the superintendency of the schools of the cities of Massachusetts. Three excellent men, Emerson, Hale, and Philbrick (in order of resignations), have retired. Never could they have withdrawn and their loss be so keenly felt as now. Mr. Philbrick has occupied leading places as instructor in High and Normal Schools, and for many years has held the highest educational position connected with the public schools in the State. His Boston reports will be missed, as will his advice and counsel ; but it is hoped his connection with the State work will not be withdrawn. We wish, especially in behalf of the young teachers of the State, to pay a just meed of praise, by saying that probably no man of influence has done so much actual work for young teachers so cheerfully as has Mr. Philbrick. None will lose more than the younger portion of the profession.

CHARLES M. CUMSTON, Esq., followed in the footsteps of the superintendent, declining to be a candidate for re-election as head-master of the English High School.

"To the Chairman of the English High School, the Rev. Dr. Lothrop.

"DEAR SIR, — I take this early opportunity to inform you, and through you the School Committee, that I intend to leave my position as head-master of the English High School at the close of the present school year, and do not wish my name to be used as a candidate for re-election. For more than one quarter of a century I have served the city in the English High School as usher, sub-master, master, or head-master, and in all these relations have endeavored honestly to do my duty to my individual pupils, and to promote the best interests of the school. I have held the office of head-master five years; and while I may claim that I have not failed in zealous and devoted work, I gratefully acknowledge that for the unexampled prosperity which the school has enjoyed during these years, indicated by its large annual increase of pupils and the marked success of the extended course of study, I am greatly indebted to the good offices of my accomplished teachers, to the valuable services of the English High School Committee, and especially to yourself, whose wise and faithful labors for twenty-six years as chairman of that committee, give you a strong claim to the gratitude and reverence of every alumnus and friend of the English High School. I shall ever retain a deep interest in the English High School, to which I have devoted the best years of my life, and I sincerely hope that the second half-century of its existence will present as brilliant a record as its first.

"Very respectfully,

"CHARLES M. CUMSTON."

ELLEN M. SAUNDERS was appointed teacher of the Hancock School, Boston, at the maximum salary.

EVA D. KELLOGG received a similar appointment in the Stoughton School, Boston.

S. S. SANBORN, Esq., many years a

teacher in the Wellfleet High School, has resigned because of an election to the Principalship of the Medway High School.

MISS KINGMAN, of Stoneham, has received an appointment in the Andrew School, Boston.

MARGARET WHITTEMORE receives a similar appointment in the Stoughton School, Dorchester District.

WALTHAM. — *Appointments.* — Miss Maria Jones, teacher of the first intermediate class in the North Grammar building; Miss Nellie M. Coye, teacher of the Primary School in the North Grammar School building; Miss Mary A. Frost, teacher of the East Intermediate, transferred from West Primary; Miss Josie A. Clark appointed teacher of the West Primary; Miss Nettie Wetherbee, teacher of the West Primary School, No. 5 Charles Street. The foregoing are all graduates of the High School. The daily sessions of the High School will begin at eight o'clock, A. M., during the summer and fall terms.

NEW HAMPSHIRE. — The State Superintendent of Public Instruction, Hon. D. G. Beede, is doing a good work. Among other movements in favor of educational improvement, he has inaugurated county associations of school superintendents to secure unity of action and other benefits in behalf of the schools of the State. His first institute, at Peterborough, was attended with marked success, teachers and the citizens showing much enthusiasm. The annual institute for Rockingham County, to be held at Derry, May 11 to May 15, was a success, practical topics being selected for consideration; and some of the best talent of the State constituted the corps of instructors.

The annual examination and graduation exercises of the State Normal School, at Plymouth, occurred on Monday, Tuesday, and Wednesday, — May 4 to May 6.

On Tuesday evening General Eaton, United States Commissioner of Education, delivered an able and interesting address on the need of an improved condition of education in our country.

The graduating exercises on Wednesday afternoon were of a high order, and were well received by a large audience. Prof. H. O. Ladd accompanied with appropriate remarks the presentation of diplomas to twelve graduates in the first, and to three in the second course.

Prof. Knight, of New London, and S. B. Page, Esq., of Concord, followed with short and encouraging speeches.

In the evening, Prof. Amos Hadley, of Concord, a former principal of the school, was most heartily received, and delivered an admirable address on "Normal Instruction." Mr. F. B. Russell, of Plymouth, followed with an interesting and feeling memorial of Prof. S. H. Pearl, late principal of the school, in connection with the presentation to Prof. Ladd of a fine portrait of the deceased.

The alumni reunion and supper at the Pemigewasset House called together a large number of the alumni and other friends of the institution, and the occasion was most enjoyable. Chronicles were read by Miss E. G. Thompson, of Keene, a poem by Mr. W. E. Walker, of Webster, and prophecies by Mr. C. B. Platt, of Stratford, Vt.

Mrs. Rosa P. Akerman, for several years Principal of the Merrimack Grammar School, Concord, has accepted the Principalship of the Northampton High School.

Mr. J. D. Bartley, Principal of the Concord High School, has lately issued a simple, convenient, and cheap system of school records, suited to schools of all grades. It is in three parts, No. 1 being a pocket record book for marking daily attendance, conduct, and recitations; No. 2, a permanent record of monthly averages; and No. 3, a monthly report-card for the inspection of parents. A new and ingenious device saves much time and labor in making out records.

SALEM. — Mayor Cogswell, in company with the superintendent, has visited all the Primary Schools of the city, carefully noting their condition. He expresses himself as satisfied that they are in general doing good work, and that they are improving in methods and regimen. Probably few mayors, if any, in our Commonwealth take so deep and active an interest in public schools.

The Agassiz Memorial Contribution in the schools is to be received on Thursday, 21st inst., as the 28th inst. is in vacation week.

Miss Abby A. Grant and Miss Georgiana Lewis have been elected teachers in the Holly Street Grammar School. Miss Fanny Cleaves has been elected teacher in the Bowditch School, and Miss Mary L. Chapman in the Howard Street Primary.

Grammar School pupils are hereafter to receive diplomas at graduation.

Mr. Bennett, the Instructor in Music, recently gave a very interesting exhibition of his methods of teaching music in the schools. He had a class from the Bentley (Girls') Grammar School. The class showed remarkable proficiency, not only in reading music from the staff, but also in singing tones indicated by the instructor upon the board, and in writing upon the board the appropriate letter or numeral for any note given by him upon the violin.

The exhibitions in drawing and music occur in June. It is not premature to say that these exhibitions will attest to the excellent work done by the special instructors and the teachers in general.

The Salem teachers do intelligent and faithful service, and the public in a good degree appreciate that fact.

NEWTON has raised the salaries of the Head Assistants and the Principals of the Davis, Jackson, Oak Hill, and High Schools from \$700 to \$800 per annum.

Miss Mattie M. Miller, graduate of Westfield Normal School, and late of Whitinsville, has been elected First Assistant in the Prospect School, at a salary of \$700, in place of Miss Martha W. Coggins, who resigned to take charge of a school in Machias, Me.

NEWTON CENTRE. — D. S. Farnham, Master of Mason and Prospect Schools.

Books.

LIPPINCOTT'S MAGAZINE for June contains its usual amount of interesting matter, presented in its usual attractive form. "The New Hyperion," with its illustrations, is continued; George MacDonald makes progress in "Malcolm"; some unpublished letters of S. T. Coleridge find the light; and the Monthly Gossip is particularly interesting.

THE ATLANTIC MONTHLY was never better than now. "A Chapter of Autobiography," by Robert Dale Owen, is always interesting, and to those of us on the shady side of fifty it suggests and brings back memory of more than it tells. The poetry is good, and a "Chapter on Education," which is a new feature, is an interesting and valuable contribution to those of us who are looking for materials for a *system* of education.

THE POPULAR SCIENCE MONTHLY, while not less valuable for its contributions of special interest to the scientific, contains more than the usual amount of matter which will be of general interest. The article by Andrew D. White, President of Cornell University, on "Scientific and Industrial Education in America," is of universal interest, and especially valuable to all educators. Elizur Wright's article on "Insurance Value," should be read by all who have pecuniary or other interests in life insurance. The Editor's Table, Literary Notices, and Miscellany always contain much that is instructive.

OF THE ST. NICHOLAS for June, we can only say about what we have to say every month. It reminds us of Norfolk's description of the meeting between Henry VIII and Francis I on the "field of the cloth of gold," and by changing *days* to *months* we can adopt it:—

"Each following (month)
Became the next (month's) master, till the last
Made former wonders its.

"Now this
Was cry'd incomparable; and the ensuing (month)
Made it a fool and beggar."

THE ANCIENT CITY: a Study on the Religion, Laws, and Institutions of Greece and Rome. By Fustel de Coulanges. Translated from the French edition by Willard Small. Published by Lee & Shepard.

This is one of the most interesting and remarkable books of the day. It is an attempt to find the origin of Greek and Roman institutions; to explain what seems to us as the "unjust caprices" of ancient private law, "by going back to the first ages of the race," "to the time when its institutions were founded," and to show that their social state was the result of the earliest religious beliefs.

"According to the oldest belief of the Italians and Greeks, the soul did not go into a foreign world to pass its second existence; it remained near men, and continued to live under ground." "In those ancient days they believed so firmly that a man lived there, that they never failed to bury with him the objects of which they supposed he had need,—clothing, utensils, and arms." "They poured wine upon his tomb to quench his thirst, and placed food there to satisfy his hunger."

From this primitive belief, and the duties implied in it, a complete religion of the dead was established; they became objects of worship. The due observance of the sacred rites was enforced by being the condition of a happy existence for the dead. Upon neglect, they left their tombs and became wandering shades, reproaching the living with their negligence, or afflicting them with diseases or otherwise. From this belief came

"the sacred fire," and the necessity of keeping it constantly burning,—an extinguished hearth and an extinguished family being synonymous expressions. Thus "religion became the constituent principle of the ancient family, and of the city. The descent of property was based entirely on the necessity of perpetuating the family. Kinship was entirely subordinate."

Such is a brief sketch of the author's hypothesis; and surely, if the value of an hypothesis is to be estimated by the number of facts it will explain, this hypothesis seems to be amply supported. The numerous quotations from classical authors of expressions which had outlived the primitive beliefs, and which seem meaningless on any other hypothesis, almost compel belief that we have here the clew to their original meaning.

We sometimes hear the expression of "reading between the lines," when an author is peculiarly suggestive. In this book one reads in advance of the author. Having read a few of the first chapters, of the "Notions about the Soul and Death," "The Worship of the Dead," "The Sacred Fire," "The Domestic Religion," "The Family" and its continuity, we anticipate the author when he announces "The Right of Property," or "The Right of Succession," and could

almost write the chapter ourselves. We cannot too strongly recommend this work to any one curious to know something of the origin of peculiar laws and institutions, which seem wholly capricious from a modern standpoint, or to find the primitive and literal meaning of expressions which, though familiar as household words, have so far escaped more than a rhetorical analysis, of which the literal basis is lost. One is made aware that it is a translation only by the statement on the title-page.

BOOKS RECEIVED.

MANUAL OF FRENCH POETRY, WITH HISTORICAL INTRODUCTION AND BIOGRAPHICAL NOTICES OF THE PRINCIPAL AUTHORS. For the use of the School and the Home. By A. H. Mixer. Published by Ivison, Blakeman, Taylor & Co. Also,

A NEW TREATISE ON THE FRENCH VERBS: including an Easy and Practical Method for Acquiring the Irregular Verbs, etc. By Alfred Hennequin. Published by Ivison, Blakeman, Taylor & Co.

Received from Cowperthwaite & Co., **WARREN'S NEW GEOGRAPHY.**

From A. S. Barnes & Co., **THE INDEPENDENT CHILD'S SPELLER.** Printed in Imitation of Writing. By J. Madison Watson.

THE MASSACHUSETTS TEACHER.

[A. B. MILLER, Editor for July.]

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✓ *NATURAL HISTORY IN PUBLIC SCHOOLS.*

Extract from a paper read before the Hampden County Association, at Springfield, May 15.

IN order to know what place Natural History should have in our public schools, and how it should be taught there, we must keep in mind the ends to be secured by the work of these schools. I conceive this work to be, to give momentum towards, and as far as possible to secure, a healthy development of the physical, intellectual, and moral natures of their pupils; to give pupils a relish for protracted, patient, thorough work; to enable them quickly and clearly to distinguish resemblances and differences, and consequently to think well; to give them power to marshal and to focus all their powers for the accomplishment of any desired end; to give them disposition and ability to help themselves and others on towards perfection. The end is discipline, culture, rather than the acquisition of knowledge, though it should be observed that we get no real knowledge, except through methods of study which result in culture. When children enter the public schools, they are rather sharp observers, but their observations are mainly of superficial, salient features. They are industrious but unsteady, without method,—humming-birds sipping a little here, a little there, abiding nowhere long. Their curiosity is not to be repressed, but directed. They are to be led gradually, but steadily, to clearer and completer perceptions, to greater accuracy of expression and description, to a knowledge

of relations, to classifications, to principles and laws. What provision is made in our courses of study for the supply of the wants of these hungry souls? What food do we feed them to fit them for kingship and priesthood in the kingdom of Nature and of God? Why, we immediately cut them off from communion with Nature, and put them at once to a diet of Mathematics! And of this we force them to partake, with few interruptions, to the end of their college course. To this we add a shorter course in Geography, in which, for the most part, pupils are required neither to observe nor to reflect, but simply to remember the statements of others,—statements whose accuracy it is impossible for them to verify or to deny.

We fill up and round out all our courses below the High School course with Language. But instead of introducing Language as it becomes necessary for the expression of ideas and thoughts acquired and produced by the mental activity of our pupils, and thus teaching pupils to use language discriminatingly, we serve it up, not necessarily, not wisely, but under the circumstances rather naturally, by the chapter or page or column, often with no regard for the sense, to be stored away in some imaginary attic as a fund to be drawn upon to meet the probable contingencies of practical life. Now, bearing in mind that real success in all departments of life is based upon a capacity for exhaustive observation, that such observation lies at the foundation of all forms of mental activity, that childhood and youth are Nature's appointed time for the development of the perceptive faculties, that to neglect the cultivation of these faculties at this time is not merely to *postpone*, but practically to *prevent* their development, we can see how shamefully inadequate are the provisions of our schools, and especially of our common schools, of which I was requested to speak. "Mathematics," in the language of an eminent authority, "knows nothing of observation, nothing of induction, nothing of experiment, nothing of causation." Political Geography, the only kind taught to any extent in our common schools, calls, as I have already said, for little exercise of the perceptive faculties; and the study of Language is little better. Now we may appropriately inquire, "Is the introduction of Natural History into our schools a thing greatly to be desired?"

Would it furnish a remedy for existing evils?" The study of Natural History promotes physical vigor, by frequently calling to moderate and varied exercise in the pure air, under the vitalizing influence of the sun, to exercise which is doubly profitable, because taken under conditions that draw the attention away from the exercise itself.

Proficiency in doing anything is the inevitable result of long-continued, judicious practice in doing that thing. Instead of knowing *nothing* about "observation and experiment," Natural History knows *all* about them. It has its beginning in observations; from observations and experiments it can never be divorced. Its hypotheses and its theories must be based upon observed facts. Nothing is regarded as proved until it has been subjected to some "experimentum crucis." The phenomena it presents are exhaustless. Its phenomena are suited to minds of every grade; the simplest are within the grasp of the child in its earliest months: the most complex will ever baffle the highest powers of the human intellect.

It must be evident that the study of Natural History is admirably adapted to cultivate the perceptive powers. It might easily be shown that it makes ample provision for the development of the reflective powers, the memory, and the imagination; I may safely leave that with you. Had I time I would show here that Natural History furnishes us the best means for training our pupils to fluency and accuracy in the use of language. This point might well form the subject of a separate paper.

But I must say a word with regard to the influence of a proper study of nature on the formation of character. We learn to admire beauty and nobility by seeing and knowing objects that are beautiful and noble. We act wisely, when, desiring for ourselves true manhood, we steadfastly bring ourselves into the closest possible relations to those who are wisest and best. At great expense many brave the perils of ocean to view the works of art in other lands. In galleries and temples the true man beholds and gains refinement and depth and breadth and strength. The venture is a profitable one. But whether at home or abroad, we are all in a temple "not made with hands," a temple full of beauty and glory and perfection, unapproachable

by the highest human skill. How much we might do for our pupils by reverently guiding them, through contemplation of this beauty and glory and perfection, to communion with and likeness to the Great Author of all!

The best way to secure virtuous conduct on the part of our pupils is to beget in them such self-respect as will make them feel above doing any mean thing. The boy who refuses to do wrong, not because another may find him out, but because he shall "know it himself," is safe. How can we better beget such a sense of honor in our pupils than by leading them to see what honor and dignity God has put upon them in placing them over all these wondrous works, causing all things to minister to their wants, — in creating them in His own image, and thus making it possible to hold communion with Him? Think of Arithmetic and Political Geography in comparison!

Allow me to say to those who contend for what is miscalled "practical" in our school work, that the difference between even a little knowledge of Natural History and the absence of such knowledge may be the difference between the life and the death of a tribe or a nation. An illustration or two must suffice: A few years ago, a portion of Switzerland, having unwisely made war upon the birds, was in imminent danger of starvation from the ravages of insects, upon which the birds had fed. The peril was so great that the government offered liberal bounties for the destruction of the animals and their eggs. Having no crops to harvest and no encouragement to plough or to sow, the people had abundant leisure; their partial starvation gave them the requisite will; and long processions of men, women, and children, on foot and in carts, might soon have been seen bearing their common enemy by the pint, the quart, the peck, the bushel, the cart-load, to claim the offered bounty. The authorities were almost literally overwhelmed with their purchases. What to do with the pests was now the question. Finally they sagely determined to bury them in the earth, — and bury them they did! They saved the insects the trouble of digging for themselves, and made sure of a full crop for the next year.

Let me come nearer home. For some time previous to the year 1868 the trees in the neighborhood of Boston had been

infested by a white-spotted caterpillar ; in that year this caterpillar appeared in largely increased numbers. Says Dr. Thomas M. Brewer, who has kindly furnished me with these facts, "They were seen crawling about over the ground. All the trees on the Common, our larger elms most of all, were covered with their cocoons, in the centre of which their eggs were laid. These were most numerous in the upper branches, where they could not be reached. I sounded the alarm in our newspapers, and our city forester set his men at work scraping the trees. But it was like bailing out the ocean, and the expense was about five hundred dollars a day to the city. In the mean while our sparrows (they had imported some twenty pairs of European sparrows in the spring of that year) had increased to seventy-five pairs. They were at work all the winter and the spring, climbing more like woodpeckers than perchers, gathering these clusters of eggs. The next summer (1869) there were a few left, and now they have all disappeared. I do not believe that a million of dollars employed in any other way could have accomplished what one hundred and fifty European sparrows did in a single season." I need not inform you that in Eastern Massachusetts and in Southeastern New Hampshire, orchards that yielded thousands of barrels of fruit fifteen years ago have recently been almost as barren as the posts in our fences. In our own county the case is not so bad ; but here the industrious *curculio* ploughs its crescent furrow and plants its eggs unscared, and the result is, that from the orchards on a hundred farms, in an average fruit year, you will hardly be able to cull a single barrel of fair fruit. To somebody's knowledge of Natural History we owe our improved breeds of domestic animals, our most delicious and important fruits.

Alas! have I been dreaming? Is this all visionary talk? It must be so. Our statute laws make no provision for the systematic teaching of Natural History in our public schools. You may search in vain for any such provision in most, if not in all, our town and city courses. Our Normal Schools, training teachers mainly for the common schools, devote from three to ten or more times as much time to *Algebra* even, as to any branch of Natural History. I see before me a gentleman who has two children at school: one is a young man, a Senior in one of our

first-class colleges ; the other is a girl of nine years, in an intermediate school. Both are now studying Elementary Botany, *doing exactly the same kind of work*. I believe the young man is improving his first opportunity for this study. The only thing exceptional in the case is, that the girl is privileged to put off what is far beyond her capacity, and engage in what is easily within her grasp, and that furnishes most excellent discipline for all her powers. What a commentary are such cases upon our public school system ! Shall we say, rather, lack of system ? The difficulties in the way of introducing the systematic teaching of Natural History into the public schools are few, but some of them are formidable. Those presented by the courses of study might easily be overcome. The lack of trained teachers in this department is a much more serious matter. With all the deplorable apathy that now exists in regard to this subject, the demand for good teachers is far greater than the supply. Burdened as they now are, teachers cannot fit themselves for doing *good work* in this department. One of our most pressing needs at the present time is the introduction into our system of public instruction of the principle of the "division of labor." No man can teach well Language, Mathematics, Geography, History, Physics, Chemistry, Botany, Zoölogy, Mineralogy, Geology, and Astronomy. Even in shoe-making, where the operations are few and simple, where a shoe may be made by a single person in less than an hour, much more work and much better work can be accomplished by a given number of workmen, if each man does some particular part of the work and that only. How much more in this work of developing mind, forming character, building up men and women, where processes are complicated, the work extended over many years ! What a teacher teaches in one day should be but a small part of what he knows. The teacher should be a general, not a corporal, taking in a large field, having a definite end in view, and shaping all his work for the accomplishment of that end.

The city of Springfield employs one teacher of music for all her public schools. Holyoke and Westfield do the same. Why should not each of these places employ, in like manner, a teacher of Natural History ?

Let us now suppose we are permitted to teach Natural History,

but are required also to teach all the other branches prescribed for the schools. What can we do, and how shall we do it? From the nature of the case, our work must be very limited, very fragmentary; but what we do, we may do in such a way that, wherever we stop, our labor will not be lost. We may give our pupils a bias in the right direction. The fact that we can do so little should make us doubly careful to do that little well. How then shall we teach? The principles of good teaching in any branch are the same as for every other branch. There is only one right method of teaching. We may advantageously seek for variety in the application of this method. Only with loss, and that loss unspeakable, can there be any variation from the method. The mind grows, gains power, only by its own activity. To read what another has written of some object, or to hear what he may say of it, requires a certain kind of activity. To make an examination of the object for one's self and find its structure and its qualities requires another and very different kind of activity. The first may give power to remember words, but can never excite new ideas; the second gives knowledge of things, power to perceive resemblances and differences, to form correct and independent judgments, and furnishes the only possible foundation for the intelligent and forcible use of language, by exciting clear, well-defined ideas. The first kind of activity tends strongly to prevent the second, and as a rule is worse than useless, inasmuch as it not only wastes the time of the pupil, but creates an indisposition for honest, profitable labor. I counsel you, therefore, to bring your pupils face to face with Nature. Yet I would not be understood as recommending that a pupil should never be permitted to read. After he has made a protracted study of some object, a study that seems to him to be exhaustive, I would say to him, "You have done very well. If you continue as you have begun, you will soon be able to do excellently." Then I would put into his hands a monograph on the same subject by the hand of a master, and ask him to read it. He will find recorded all he has himself learned, and probably find that he has seen but a small part of what reveals itself to the trained eye. He will be encouraged to return to the object of his study for a more searching examination. To ask him to read the same

words before he had investigated for himself would only do him harm.

It makes very little difference with what we begin. But let us take something common, easily obtained.

Make your teaching *methodical*. Let each day's lesson have some connection with what goes before, and what follows. Let all be done with reference to the future wants of your pupils.

Let the teaching be *comparative*. Each of several unlike, but related things will be seen and understood much better if studied in connection with the others.

As far as possible, make the teaching *exhaustive*. This will often require much time to be spent upon a single subject. Complaint is made of some of our schools, that their pupils "do not get along." It is exceedingly unfortunate that the charge does not lie against a greater number of schools. The Natural History field is, as I have said, exceedingly fertile; we have but to "tickle it with a hoe, and it will laugh with a harvest." But its most precious treasures lie below the surface; for these we must dig and sift. By judicious guiding in such work, we may beget in our pupils a *relish* for patient, careful research, and such a relish is *genius*. The fact is, that instead of making no progress by this kind of work we can make progress in no other way. Encourage your pupils to *picture* what they see. "A pencil is one of the best of eyes."

Require *verbal descriptions*, and thus give your pupils an opportunity to learn to use the language well, by actually making use of it under your direction.

J. G. SCOTT.

REMARKS.

It will never do to put the proper title of this article at the head of it.

Unless I can contrive to steal a march upon the reader, he will hardly consent to consider again certain propositions which I wish to submit to him; of which the first is, there is no necessary antagonism between faithful study and sound health.

At the first view the evidence against this statement seems

overwhelming. The very expression "a hard student" calls up to most minds a pale face and slender form. Near the graduation of a recent college class containing ninety-nine members, one of the most thoughtful and intelligent men in it said, "I do not think a single man in the class, who has attempted to be faithful to the prescribed course, has come through it with unimpaired health." That statement, with at least a show of truth, has great force. And yet though study doubtless helps to break down the health of many a promising college student, the blame does not belong to the study, his proper burden, but to the great weight of business, of pleasure, and of bad habits he throws on the top of his load.

Doubtless all who read the "Massachusetts Teacher" believe that God made man; that when He made him, He formed a tolerably sensible and consistent plan of what was to be created; and since he was to be "a kind of first fruits of his creatures," that this plan contemplated a high development of his intellectual powers. If, then, faithful study necessarily undermines the health, either the Divine plan fails, or it does not reach as far as we have supposed.

Fortunately, there are not wanting examples both of illustrious and of ordinary persons, to show that it is not the activity of the mind, but the unfavorable conditions under which it is exercised, that works such mischief with the body.

Ministers, as a class, devote their lives to study, but their days are not shortened thereby. The amount of intellectual labor some of them perform is simply prodigious. If Albert Barnes was broken down by study, the amount of work and the length of time required to do it give great encouragement to all students. If mental activity and fruitfulness use up a man, how is it that Mr. Beecher still stands so straight, and looks so full and round and rosy? Shakespeare makes Cæsar say, "Yon Cassius hath a lean and hungry look; he thinks too much." And yet such men as Socrates, Newton, Kent, Goethe, Humboldt, and Agassiz did considerable thinking in their day, apparently without physical harm.

Those who say that man was made for a trooper or a sportsman, and that if he thinks he does so at the expense of his phys-

ical soundness, dwarf humanity and dishonor God. Study does not necessarily make a man sick, any more than hoeing corn or weighing out tea and codfish. Immediately beside this conclusion, I wish to place a second proposition, to wit : Going to school is an unhealthy employment, the getting of an education a dangerous undertaking. A boy required to pass through the primary, the grammar, and the high school, and then take a course in college, or the girl who must ascend the successive grades necessary to give her a finished education, is exposed to physical danger and harm hardly less than the young man who enlists in the army and starts out on a military campaign.

The friends of the young soldier, when he is ready to depart, hold him back tenderly, and with tearful eyes cast into the future a glance of anxiety and alarm ; but when the little traveller starts on his long, tedious, perilous educational journey, his friends urge him forward with cheerful insensibility. If they could foresee some of the ambushes into which he may fall, some of the insidious attacks from invisible enemies to which he may be exposed, though they might not dare to withdraw him from the contest, their increased watchfulness and wisdom would be a perpetual fortification for him.

Americans are charged with being a nation of invalids. It is of course a caricature to speak of " universal feebleness " ; but the reader will doubtless admit that those who possess sound health are exceptions, while those who lay claim to good health are a minority in this most excellent Commonwealth of Massachusetts.

There is no lack of causes for this most lamentable state : climate, dress, unwholesome diet, whiskey, tobacco, late hours, hurry, worry, overwork, are ever-flowing fountains, pouring their separate streams into the general reservoir of physical depravity, and they seem amply sufficient to account for the facts. But what is here claimed and urged is that to this catalogue of influences, injurious to the general health, schools must be added.

Whatever of good or bad naturally results from school-life must be singularly pervasive in the community. One fifth of the population of Massachusetts is under its impress at one time, and in a few successive years, the whole of it : thus its bless-

ings, which are beyond compare, reach everywhere, like the sunshine which revives every slumbering bud in the forest and warms every blade of grass on the wide prairie; and its harm, if it does any, must spread just as far as the miasma, which, diffused through the atmosphere, must be inhaled by everything that breathes.

We seldom get unmixed good in this world, and we may not expect to remove from school-life every harmful influence; but to diminish them even by a little is worthy the most earnest effort. To this end I wish to speak of worry, overwork, compulsory labor, foul air, and bad seats. As I run over these points, and query with myself whether anything needs to be said upon them, I am reminded of a man who went out to hoe his corn. Looking at the corn thoughtfully, he said, "This hill will do well enough without hoeing; this one will never come to anything if it is hoed," but of a few doubtful ones he took a little care. So of those who glance at this article: to some I need not speak at all, for they feel the full force of these evils, and are doing their best to counteract them; to others I need not say anything, for they have neither knowledge of the evils nor faith in the remedies; but to a few who stand between these, a word of suggestion may be a help.

In the Report of the State Board of Health just issued, there is an article entitled "School Hygiene." Two statements in it impress me deeply. First, that even in high places, ventilation is still painfully insufficient; second, that the difficulty admits of a remedy.

So much has been said, and so much is now clearly known of the harmfulness of breathing foul air, it would seem safe to infer that our school managers use the best means within their reach to avoid it, and that if pupils are not supplied with pure air in costly school-houses, it is because the solution of the problem has been found practically impossible.

But in the Report of the State Board may be found the following:—

"One of the school-houses presented in the report of the State Board of Education for 1873, as a *MODEL*, on the warming and ventilating of which much thought and care had been bestowed,

was visited in December, 1873, and this is the report: 'I visited several rooms and found the air offensive in all, the odor being such as one would imagine old boots, dirty clothes, and perspiration would make if boiled down together. The master says he knows of no school-house where good ventilation is secured, and our superintendent of schools says the same.'

"The new Harvard school-house in Cambridgeport bears examination better, the report on it by the master being, 'The ventilation, though not perfect, is very good. On the whole, I should say the ventilation is a success, considering the miserable failures which occur in the majority of cases.'"

Of a private school-house in Boston, the Report says, "An instance of *completely satisfactory* arrangements for heating and ventilation, working well at all times and supplying to the school-room during severe winter weather an atmosphere like that of June, and in which one is warm enough at sixty-five degrees Fahrenheit. *Exactly this system might be applied to public schools.* It necessitates in a building that would accommodate one hundred and fifty or two hundred scholars, an additional outlay of not more than \$450, and perhaps twenty-five per cent more fuel. It is substantially the same system which has been advocated by the best authorities for the past ten years."

I, myself, visited one of the grammar schools of Pittsfield, a few months ago, and found air fully answering to that of the *model* school-house, above described. I went thence to the work-room of the jail, where the air seemed pure and sweet. A visit to the Westfield Normal School last winter made me acquainted with a school-room in the building of the "School of Observation," where the air seemed wholly without taint after three hours' use. This was not only exceptional in my experience, it was wholly unparallele. And I am fully of the opinion that school-children are generally compelled to sit and work in ill-ventilated rooms, and that, too, in Massachusetts, in 1874, when people know that children die if they don't breathe, and that the citadels of their little bodies are set wide open to the attacks of disease if they do not breathe *pure* air. The evil is very serious. A remedy seems to be within reach.

Again, going to school tends to distortion of the spine, and

distortion is as fruitful of ills as a corrupt government to the body politic. Dr. Jarvis, a good authority in physiology, says, "The habits of school-children, and especially of girls, create a fearful frequency of spinal distortion." He quotes Dr. Warren as saying, "Of the well-educated females within my sphere of experience, about one half are affected with some degree of distortion of the spine." Many think the ratio much larger.

The most common way in which this happens, I will attempt to explain. The posterior view of the natural spine presents two curvatures, one convex at the shoulders, the other, deeply concave, just above the hips.

If the reader is sufficiently interested in the subject, let him sit down in an ordinary chair, leaving a space of about four inches behind him. Then let him lean against the back of the chair, and drop the small of the back as low as possible. The lower curve of the spine is either straightened, or curved backward. Let this attitude be repeated and continued, till the bones get set in that position, and you have the posture which characterizes school-girls in the higher grades, the posture so much desired by some fashionable young ladies, but which disorders the whole animal economy, and endangers the health in a thousand ways. This dislocation of the internal organs is especially hazardous to girls, but is not confined to them by any means, for it reaches the stomach and the organs of the chest, because the backward bending of the spine below tends irresistibly to throw it forward above. Now, the subject of this deformity is nearly ready to find something personal to himself on every page of the patent-medicine almanac. One thing that surprises me in this connection, is that our upholsterers seem to have entered into a deep-laid conspiracy to promote and perpetuate the evil begun at the school-house. I never in my life saw a chair that would support the back of one sitting in an *erect*, normal attitude, from the upper point of the hips to the lowest point of the shoulder-blades. Some are found that do this when the body is inclined backward from the seat fifteen or twenty degrees. These seem exceedingly rare and precious, but they are of course for rest and not for work.

There is no room here to discuss remedies for this very prev-

alent and very serious evil. The writer has a project of making his fortune some day, by constructing a chair suitable for people to sit in; but he has so little faith that his efforts, even if successful, would be appreciated, that he does not wish any of his readers to feel debarred from a similar undertaking. That coming man, who shall invent and introduce an adjustable and somewhat elastic chair back, that can be made to fit and support the natural curve of the back, should have the admiration of men and the affectionate gratitude of women.

Teachers need to watch very carefully, lest in stimulating to effort, they cause harm by overwork. To some teachers, who feel discouraged and disgusted by the little their pupils seem to accomplish, this statement may seem absurd; but they should remember that when they are belaboring the laggards, the leaders hear the sound of it, and need to be soothed, checked, restrained. The pressure which they bring to bear on the school falls most heavily on two classes: those who least need it, and those who can least bear it, — the studious or ambitious, and the anxious and sensitive natures. Doctor Winsor, in his report, says of them, "They are spurred to an unnatural effort in order to drag along the mass of the school, the heavier and healthier natures, at a rate which they would not otherwise attempt; in which process, the strain falls of course on the leaders, or on those who seek in vain to lead. They become worried and nervous. Fortunate is the average child, who can shed this worry as a duck sheds rain, who leaves all thought of school behind when he leaves the school-house, and is absorbed in his play. If girls could do this, equally with boys, school would less often harm them. One of the worst things that can be said of our present school system is that this evil of 'worry' falls most heavily on those scholars who are longest and most completely under that system." We are very apt to under-estimate this danger because we feel that the general fault of our school is in an opposite direction, — too much idleness, too great indifference. But if a few suffer harm, and if those few are the leaders and flowers of the school, let us remember how precious these choice spirits are, and watch over them very carefully. The Confederates lost more power when Stonewall Jackson fell than by the capture of ten thousand veterans. The

sharp-shooter that could have "drawn a bead" on Sheridan would have won half a dozen battles in an instant. The scourge that smites the best does dreadful execution.

Another reason why his labor is wearing to the pupil is, that he is so generally moved to it, not by his own appetite, but by some "*vis a terge*." His feeling is that he is performing tasks, not acquiring knowledge; not seeking after truth, but trying to get a good mark. Losing the impulse of spontaneity, he is shorn of half his strength, and so is jaded out by a burden which, if self-imposed, he could carry out at arm's-length. No one feels this more than the college student. Doubtless, pupils will be compelled to learn prescribed tasks as long as the world stands, but they work at an immense disadvantage, and must take the consequences of it. Thus we see that there are still serious evils connected with our schools, which may, for the most part, be greatly ameliorated.

If any school-committee-man chance to read these lines, he is hereby admonished to do what in him lies to see that his school-children have good air, the best possible arrangement of seats and desks, a proper method and amount of work, and a quiet spirit. These fully secured, we should destroy many of those "little foxes that spoil the vines, for our vines have tender grapes."

A. B. M.

THE EDUCATIONAL VALUE OF MUSIC.

✓
BY PROF. B. C. BLODGETT.

WHEN Dr. Lowell Mason returned from his studies in Europe, in 1840, there was no stronger desire in his heart than to introduce the study of music into the public schools of his native land, as he found it in all the schools of every grade in Germany. This became one of the most determined purposes of his professional life, and (though he did not live to carry it out in full) the amount of success that crowned his efforts, in spite of prejudice and opposition, as well from the musical as the unmusical, was, in his often-expressed opinion, the great achievement of his life. His first success was only to secure a half-hour of recess from

study, once a week, in some half a dozen schools in and about Boston, in order "that he might amuse and interest the pupils by singing to and with them." His thought, however, was not merely to entertain the scholars, — not to provide an interesting and innocent manner of spending a recess, — but to make music a *branch of study*, co-ordinate with the others pursued in the school. In these thirty odd years, since that time, the public sentiment in regard to the matter has undergone great changes, so that the question now is not at all as he found it, nor indeed precisely as he left it. It is now so universally admitted that singing is an important element in the emotional and moral atmosphere of the school-room, that no wise teacher is willing to do his work without it; but there seems yet to be very little opinion and no systematic work whatever, that is based upon a correct estimate of the value of music as a means of *education and culture*, co-ordinate with history, poetry, and mathematics. The most advanced feeling seems to be that it is a valuable and (perhaps even) ennobling recreation, and, in some cases, a useful acquirement for the entertainment of friends, or the possible procurement of a livelihood in the event of need; but the aim of the present paper is to show that this estimate is only secondary, and wholly unworthy; that music should take rank among the most important means by which educators seek to secure for their pupils symmetrical development of mind and character. Let it be understood at the outset, that by *music* is here meant not merely the power to sing or play, but a comprehensive (though not necessarily exhaustive) study of the principles and practice of the art.

The foundation of all the objection to our proposition, that deserves notice, is the feeling that art has reference only to the æsthetic side of our nature, is wholly unpractical, appeals only to the emotions and the imagination. If this were true, our position would still be in strict analogy with everything about us; for is not the marriage of majesty and beauty, of strength and loveliness, everywhere apparent in nature; and not only without conflict, but with a vast increase of mutual attractions? Strength exalts and heightens beauty, and beauty lends its varied charms to strength. So in the curriculum, the beautiful as well as the useful should be provided for; for the latter (unless dis-

torted and rendered unworthy of its place in a system of study that aims at *culture* rather than mere *information*) includes the former, and is only complete when in harmonious accord with it. Allowing, then, to the so-called practical studies their due value, we cannot, without harm, be unmindful of that side of our mental and spiritual life which has its principal outlook towards the beautiful, or fail to make provision for it in our plans of education and refinement. Indeed, it may further be said that the highest forms of the true and the good as well as the beautiful are not found in the *actual* but in the *ideal*; hence the peculiar value of those art studies which are calculated to develop and refine the imagination, and fill the mind with forms of symmetry and beauty. If there ever was a time when "Cui bono?" was the all-important question, that time is not now; sheer utilitarianism is very far from being the noblest philosophy of our day.

But in the second place, we totally object to the statement that music is purely unpractical, wholly æsthetic; and the argument upon which this objection is based is alike drawn from reason and history. It is well known that the great reformer, Luther, attached great importance to music as a means of education. He says, "It is beneficial in the highest degree to keep youth in continual practice in this art, for *it renders people intellectual*"; therefore it is necessary to introduce the practice of music into the schools; and a schoolmaster must know how to sing or I do not respect him." The laws of musical form and performance, from the simplest principles of notation and rhythm to the grandest attainments in logical construction and interpretation, are purely mathematical, and do therefore from the outset (when properly taught) bring into exercise and tend to develop the same powers — attention, exactness of thought, and precision of expression — as do geometry or algebra, though, unlike these, they are clothed with the most beautiful drapery of art; and the stalwart trunk of certitudes and fixities is covered with a living foliage and fruitage of the most delicate refinement. There is no essential difference whatever between the process by which a musician unfolds and develops his theme, and that by which the essayist or poet does the same thing, save what belongs to the more or less subtle forms and delicate shades of expression of

which they severally make use ; the same forcefulness and conciseness of theme-enunciation, logical consecutiveness in unfolding and elaboration, comprehensiveness and effectiveness at climacteric points, together with all that pertains to the imagination in illustration and ornamentation, belong as absolutely to musical as to literary composition ; so that whatever gain, in any phase of mental strengthening or equipment, is properly to be expected from a study of the latter, is also of the former. Then the physical features of our study—the training of certain muscles, whether of the vocal apparatus or of the hand and wrist, the difficulty attending which cannot be at all understood by those who have never attempted it—surely ought not to be left out of view, if we would form an estimate of its educational value. Self-control, concentration of thought and effort, self-consciousness, moral and mental vigor,—all these are the natural product of much persistent and unwearying practice, which must be continued year after year before even a respectable *technique* can be attained ; and these are the essential elements of true culture. “If music be a language,” says an eminent writer recently, “if it be, moreover, the language of the passions, as authors have described it, we must not therefore imagine that sound conveys *only* sentiment. Music has a phraseology as varied and perhaps even more diversified than words can assume. Language defines the thought precisely : music, on the contrary, addresses a whole class of perceptions. A certain series of notes will excite our sensibility to a general but undefined feeling of grandeur or pathos or elegance, without, perhaps, producing one single perfect image—emotions merely ; yet it is obvious that these emotions attend as certainly on passages of a given kind as that definite ideas are conveyed by a particular set of words. It happens, then, that there is the same choice in musical as in conversational or epistolary phraseology ; and we apprehend that elevation and polish are attained by the same means in one case as the other,—by a naturally delicate apprehension, by memory, by a power of assimilating what is great or elegant, and by a diligent study of the best models.” Dr. Samuel Johnson, an authority whose strength of intellect and purity of character none will question, says, “The science of musical sounds, though it may

have been depreciated as appealing only to the ear, and affording nothing more than a momentary and fugitive delight, may with justice be considered as *the art* that unites corporal with intellectual pleasures." In Napoleon's oft-quoted address at Milan in 1797 occurs this passage : " Of all the fine arts, music is that which has most influence on the passions, and which the legislator ought most to encourage. A musical composition of an intellectual character, if the work of a master, never fails to touch the feelings ; and it has more influence on the mind than a good moral book, which convinces our reason but does not influence our habits." It would be easy to summon a formidable array of such testimony from men who, though not musicians, saw the value and power of music as a factor in the educational work. We forbear altogether to mention the uniform and enthusiastic witness of all musicians, from Gregory to Wagner, lest it should be judged partial and one-sided ; but this witness is wonderfully full and concurrent, being the conviction of those who *know* the value of the art, as personal pupils and teachers.

And the argument from history is equally conclusive. The story of such men as Handel, Bach, and Beethoven, who developed gigantic powers of mind with scarcely any other opportunities or means of education than those afforded by their beloved art, proves our statement decisively. Not to speak of the grandeur of their conceptions (which may by some be attributed to *original genius*, whatever that may be), their power of unfolding them, and their mastery of all forms of expression as shown in the exhaustive analysis and majestic elaboration of their themes, were simply colossal. Nor are they exceptions, save in degree, to the thousands who, in their various spheres, have opened mind and heart to the formative, disciplining, and at the same time refining and chastening, influence of true music. But we shall here be met by the objection that the musicians whom we know are not ordinarily men of thought, that they often seem to lack sadly in general culture and training, not to say, also, in moral character. In answer to this, it is important to observe that many who claim to be musicians are such only in name ; the power of musical culture is not to be fairly judged by them. A true musician, one who is able and accustomed to interpret the sublime concep-

tions of the great masters, and whose innermost soul responds to them, "as face answereth to face in a glass," is always a person of mental strength and culture, even though (as is rarely the case) he is ignorant of books, and unused to what is called cultivated society. It is safe to say, with one of the best American critics, that "In the vast majority of cases, in which the best of Bach, Beethoven, Chopin, Mendelssohn, has passed into one, and there become assimilated with his inmost life and individuality, there can lack no human culture that would be rich enough to exchange for it"; and especially is this true when we remember that by virtue of this one possession he is sensitively open, mind and heart, to every hint of truth and beauty in nature, poetry, art, history, philosophy, or science. In saying this, however, we must not be understood to plead for the *exclusive* study of music. There are doubtless many people over whom art cannot exercise much influence, because of their natural make-up, or their mental and spiritual constitution or habits; and even in the most favorable case, and in all cases, the great value of a general culture is gladly conceded. Our object is simply to show that music is a branch of study, as earnest and important in the great work of mind-culture as any other, and not a mere accomplishment or superficial adornment. Let it be so regarded by parents and teachers, and the senseless waste of time in "piano-thrumming," and foolish, hyper-sensational vocalism, will at once cease; and in its place will come (in the case of those who are able to use it) a serious, earnest study of what Schiller called "The Royal Art of all Arts," which is capable of placing the student in an atmosphere most congenial to the best and most symmetrical development; as he comes under the ennobling and refining influence of the grandest and most inspiring thoughts, couched in forms of expression far more delicate and intrinsically graceful than is any form of speech, opening up the richest sources of mental and spiritual enjoyment, in the revelation (more or less complete) of that Divine Mystery, the Beautiful,—until the ear hears it, the mind conceives it, the inmost soul rejoices in it, and the whole being feels it, as it were the breath of God.

CONCENTRATION OF POWER ON FEW STUDIES.

ONE evil, doubtless, in many of our High Schools, and certainly in most Academies and other private schools, is the pursuit of many studies at once. One cause of this is the limited time that certain pupils can be in school, and the desire of parents that they should possess "general information" on a variety of subjects. Such parents seem not to know that one valuable acquirement at school, and perhaps the most valuable, is the power rightly to seize and apply the facts of nature about us, and the "information" which throughout life lies everywhere within our reach.

Another reason urged for having many studies at once, is that the faculties of the human mind are various, and that such a course gives opportunity for their simultaneous development. This reason would have some force, if the opportunity were really given, though even then it might be said that what was gained in variety was lost in power. But most teachers will probably agree that such a division of energies has, in most cases, one of the following results: it either prevents effectual work in any study, in consequence of the dissipation of mental force, or it leads the student to pursue earnestly his favorite one, to the neglect of the others. Where the latter is the case, the evil to the individual pupil is probably not great, though the injury to the classes in the studies he neglects, resulting from the presence and example of the delinquent, may be considerable.

The more general ill effect, however, is the former, *i. e.* the preventing effectual work in any direction. The effort to bring the mind to the point of interest in any study fails, in consequence of the necessity of thrusting this subject aside for another, before the mind has become sufficiently absorbed with it to infuse real energy into the work, or perhaps just when it has become thus absorbed. This results in the gradual destruction of the power of concentration of thought, and consequently the advantages which would come from the right application of this power are never realized. Who can see our youth losing this power of intense and earnest effort, without feeling that it is a matter of

exceeding importance that something be done to remedy the evil?

In regard to the number of studies that can profitably be pursued at a time, various circumstances must have influence in determining; but we should say that the cases are very rare where more than two studies besides an art study (music, drawing, or painting) would be well, particularly if these two are the one a Language and the other Mathematics or a Natural Science. But in these two the lessons should be of sufficient length to embrace enough of the subject to awaken desire to know more of it, without being so long as to prevent opportunity for reading in connection with it. In the study of Languages, there should be time for reading works upon their relation to other Languages and upon their literature. Such reading will give zest to study. Biographical reading adds interest to History, and books of travels are well combined with either Geography or History. Roman Mythology, and all works relating to habits of life and of thought among the Romans, are suitable to be read in connection with the Latin Classics. If one study is a Natural Science, as Botany, for example, there should be time for the pupil to observe and study from Nature herself.

Where there is no art study, it may be well to combine two lighter studies that complement each other, as Geography and History, with a heavy study, like Mathematics or a Language. The special combinations adapted to any school will depend upon the studies to be pursued in the course.

We think the practice of alternating studies (*i. e.* having recitations in different studies alternate days) open to the same objections that apply to having many studies at a time. One case, however, where this might be desirable is where two modern languages, whose grammar has already been thoroughly mastered, are continued with bi- or tri-weekly recitations in the latter part of a school course. Again, sometimes a teacher, upon taking a class in Latin Classics, finds his pupils ignorant of Ancient Geography, and therefore makes this study alternate temporarily with the Latin once a week. This may be well in such cases, where the interruption helps bind together rather than disintegrate what has been acquired, as it is the line of the

general principle of not having the mind directed to too many unlike things simultaneously.

Observation and experience both incline us very strongly to the opinion that where the school course embraces many branches, it is far better to take few at once, and complete them, if necessary, in a proportionally shorter space of time, than to have them crowding upon each other in the way they do when many are attempted at a time.

Is there not danger that the frequent change of mental occupation, attendant upon such crowding, may beget in our youth a weakness and fickleness of character which we should all deeply deplore? and is it not possible that some of the loose mental habits we do lament are in part the result of such training?

We are not unaware of the difficulties that lie in the way of determining judicious and satisfactory courses of study; but everything that helps us to a just view of present evils will be a step towards this end. Parents desire the best good of their children. If they can be convinced wherein it lies, they will not be less eager than we that their sons and daughters should learn in a way that will make their knowledge available; and they will therefore welcome any plan that promises to prepare their children to enter active life with minds awake to its work, and so disciplined that their energies can be efficiently applied.

EMILY J. LEONARD.

Pittsfield.

VERMONT DEPARTMENT.

H. T. FULLER AND J. C. W. COXE, EDITORS.

EDITORIAL NOTES.

AGAIN we have no well-digested article for this department. Amid the multifarious duties of the last weeks of the school year, teachers whose intention and purpose to contribute to "The Teacher" have been of the best sort, have found it impossible to do more than their ordinary duties, and the editor for this month has been unusually overburdened through the illness of one of his assistants. We look for the garnering of plenty of ripe sheaves of thought and experience during the vacation, and hope that hereafter the columns assigned to us may show that Vermont teachers are not mere drudges, but live thinkers.

GENERAL INTELLIGENCE.

SPECIAL NOTICE. — Contributions for the Vermont Department of the "Teacher" for August should be sent to J. C. W. Coxe, Montpelier, not later than July 12. Items of news, and notices of school anniversaries, are particularly solicited.

LYNDON. — The closing exercises of Lyndon Literary Institution occurred on Friday, June 5. Examinations of classes were well sustained, and the exercises of the graduating class in the evening were very creditable. This school is under the special patronage of the Free Baptists, was started in 1870, and has had for two years as Principal, Mr. J. S. Brown, a graduate of Brown University.

ST. JOHNSBURY HIGH SCHOOL loses after the close of this year its Principal, Mr. W. H. Galbraith, A. B., and its assistant, Miss Katie Boles. Both have done excellent work, and we wish them much prosperity in the future.

Mr. Chas. A. Savage, for three years teacher of Latin and Natural Science in St. Johnsbury Academy, has been appointed tutor of Greek in Dartmouth College, but declines this position and has accepted the post of instructor of Civil Engineering in Roberts College, Constantinople. Miss Mary E. Cum-

mings, also for more than three years teacher in the Academy, has resigned on account of ill health. At the close of her work a few weeks ago, her pupils made her the recipient of a valuable gold chain. Mr. Edgar L. Morse, of the Senior Class of Dartmouth College, takes the place of Mr. Savage.

The anniversary exercises of the Academy occurred on Thursday and Friday, June 18 and 19. The examinations were well sustained, and the orations and essays of the graduating class were very creditable.

MONTPELIER. — The following is the order of exercises at the close of the term of the Methodist Conference Seminary. June 28th. — Annual Sermon, by the Principal, Rev. J. C. W. Coxe, A. M. June 29th. — Address, Rev. A. D. Smith, D. D., President of Dartmouth College. June 30th. — Address before the Æsthetic Society, by Rev. B. K. Pierce, D. D., Editor of "Zion's Herald." July 1. — Anniversary of Alumni Association. Orator, C. W. Clarke, Esq., Chelsea; Poet, Mrs. O. W. Scott, New Market, N. H. July 2d. — Commencement. Number of graduates, 10.

E. W. Westgate declines a re-election as Principal of the Montpelier Union School and Washington County Grammar School.

B. F. Leggett, for two years past teacher of Natural Science in the Montpelier Seminary, resigns and goes next year to Concordville, Pa.

BURLINGTON. — The programme of the seventieth commencement of the University of Vermont and State Agricultural College is as follows: —

SUNDAY, JULY 5.

10.30 A. M. — Baccalaureate Discourse, by the President.

7.30 P. M. — Anniversary of the Society for Religious Inquiry.

Address by Rev. L. O. Brastow, of Burlington.

MONDAY, JULY 6.

8 A. M. and 2 P. M. — Examination for admission to the University, at College Rooms.

3 P. M. — Address before the Medical class, by Dr. L. C. Butler, of Essex, President of Vermont Medical Society.

8 P. M. — Commencement Concert at City Hall.

TUESDAY, JULY 7.

9 A. M. — Annual meeting of the Phi Beta Kappa at Institute Hall.

10 A. M. — Meeting of Alumni at College Chapel.

3 P. M. — Celebration of the Phi Beta Kappa. Oration by Col. Homer B. Sprague, of Brooklyn, N. Y.

5 P. M. — Dinner and Social Reunion of Medical Alumni.

7.30 P. M. — Junior Exhibition.

WEDNESDAY, JULY 8.

10.30 A. M. — Procession from College.

11 A. M. — Orations of Graduating Class, Master's Oration and Conferring of Degrees.

3 P. M. — Corporation Dinner.

8 P. M. — Commencement Levee at the President's house:

MIDDLEBURY. — Commencement of Middlebury College occurs July 12-16. It is reported (we hope the "Rutland Herald" will take no offence at this simple repetition of a mere newspaper paragraph) that Rev. Hiram Mead, of Oberlin, O., declines any tender of the presidency from the *corporation* of the college.

BARRE. — Barre Academy closed its twenty-second year on the tenth of June. During all this time it has been under the charge of the same Principal, J. S. Spaulding, LL. D., who is now probably the senior teacher in the State, and has always been one of the most efficient. The examinations of the school, especially of the senior class, were made by President Buckham of the University of Vermont, and Rev. C. W. Clark of Daysville. Sabbath evening, July 5th, Rev. L. Tenney preached to the graduating class from Rom. 1 : 14. Monday evening was devoted to the Middle Class Exhibition. Tuesday P. M., the Alumni Association were addressed by Rev. J. J. Lewis of Boston, and in the evening of the same day, Prof. E. D. Sanborn of Dartmouth College delivered an oration before the Literary Societies. Wednesday, June 10th, was devoted to the exercises of the graduating class, the largest ever sent forth from the school. A committee, consisting of J. B. Richardson and C. A. Smith, were chosen by the Alumni to raise funds for the increase of the library.

Goddard Seminary at Barre ended its year, June 28th to July 1st, with a Baccalaureate by Rev. J. E. Wright, of Montpelier, annual address by Rev. A. J. Canfield, Chelsea, Mass.; poem by Rev. E. J. Chaffel of Chester, and the usual exercises of the graduating class, sixteen in number.

RESIDENT EDITOR'S DEPARTMENT.

DURING the coming vacation, there will be two important meetings of educators, and we know of no more pleasant and profitable excursions than those furnished by these gatherings.

Arrangements have been made with most of the railroads for fare at greatly reduced prices, and an almost unlimited choice of routes. THE AMERICAN INSTITUTE OF INSTRUCTION holds its annual session at North Adams; and, while the farthest thing in the world from a "bore" itself, to any one interested in education, it will be very near the biggest "bore" in the State,—if we except, perhaps, the discussion that is now going on at the State House, as to the manner of using it. Our wise men and *augurs* there, of whom we have several of considerable capacity, although aiming at the same point, are not so successful in getting through the legislature as the engineers were in getting through the mountain. This would seem to indicate that political engineering—though perhaps there is as much of it done—is not yet reduced to the exactness of *civil* engineering, of which it is not always a branch.

But, leaving this great hole in the mountain, which it cost the State so much to make, and which it is costing so much to get a feasible plan of utilizing through the craniums of our legislators,—we wish to say that all that is wanting to make the meeting at North Adams a success is a *full attendance of teachers*.

The lectures and discussions last year, at Concord, N. H., were of the most interesting and important character, and it is not creditable to New England teachers that the attendance is not greater. The limited circulation of our periodicals, and the small attendance at these meetings, where our best educators give us the results of their study and experience, evince a lack of professional interest—not to say enthusiasm—on the part of the great body of teachers, which makes us almost blush to speak of teaching as a *profession*.

Let us, this year, have such a gathering of teachers at North Adams, from all parts of the State and of New England, that the community shall take knowledge of us that we are in earnest, and that there is a spirit among us that will not rest satisfied with present results.

Closely following the meeting of the American Institute, the NATIONAL EDUCATIONAL ASSOCIATION will hold its annual session at Detroit. Arrangements have already been made with railroads, by which tickets for the round trip may be obtained for about twenty-five dollars, by way of Portland, Montreal, Toronto, etc. Also with the Vermont Central; Boston, Concord and Montpelier; St. Alban's; Fitchburg; Bellows Falls and St. Alban's; Ogdensburg, by rail, thence by boat,—meals and state-room included, for

twenty-eight dollars. By this route, for an extra dollar, one can spend five or six hours at Niagara.

The fact, however, that this furnishes some of the cheapest and most pleasant excursions of the season is the smallest inducement to a teacher who sets a due value upon these meetings. Here every department of education has its claims allowed, from the primary school to the college, — and the suggestions and experience of the best thinkers and the best practical teachers in each department, and from every State in the Union, cannot fail to be of the greatest interest and value to any teacher who is trying to find “a more excellent way.”

SPELLING.

TEACHERS seem to be pretty well agreed on two points with reference to teaching spelling. First, that it is acquired chiefly by the *eye*; and secondly, — and naturally following from this, — that an injury is done whenever a pupil *sees* a word spelled incorrectly. The same principle holds, of course, in oral spelling. *Hearing* a word spelled wrong is only a less evil, because the impression upon the *ear* is less permanent than that upon the *eye*.

Now, how can we, to the greatest extent, avoid incorrect spelling in our recitations? In oral spelling, the pupils hear a difficult word spelled wrong three, four, or a half dozen times, and right once. Which will make the most lasting impression, especially when the pupil can see no *reason* why one is wrong and the other right? The same may be said of written spelling from memory. If he spells it wrong, and then corrects it, the eye — so far as that lesson goes — is as much accustomed to the wrong as to the right. But how can this liability be avoided?

Suppose that we give up oral spelling from *memory* entirely, and let the pupil spell with the words before him. This will require him to *look* at the printed word as a whole, and to see and hear the letters and syllables in their due order. Then let him write the words, not from memory, but from the book. This will keep his eye still longer upon the printed word, and show him how it looks when written.

But it may be objected, that this will furnish no *test* by which to *mark* the recitation, and that, therefore, it would be impossible to rank pupils according to their per cent in correct spelling. This objection is, undoubtedly, a valid one, if the exercise in spelling is to be regarded simply as a *game* in percentage. But if the object is to make good spellers, we think the test may be left to the written exercises in composition, when, from the nature of the case, they must spell from memory.

HAVE THE CHILDREN IN OUR SCHOOLS THE ABILITY AND THE TIME TO LEARN ARITHMETIC?



"A PLEA FOR THE INNOCENTS."

[*Read before the Superintendents' Association, at Boston, by E. A. Hubbard.*]

AT a meeting of this Association a year or more ago, the query was raised whether children of the ages of those in the lower classes in our Grammar Schools are capable of understanding arithmetic; the fear was expressed that we are requiring more of them than they can perform, and the conviction uttered that we are spending too much time to too little purpose upon that subject. Since that, in other educational meetings, and from other sources, something of the same nature has appeared, and the remedy proposed seems to be to teach less the philosophy, and more the processes of arithmetic. With much that is stated, I am in full sympathy. I have no doubt that sometimes the philosophy is too exclusively taught, and the processes insufficiently. The pupil needs to know what to do and how to do it. If we teach him the latter, how to multiply and divide, but leave him so that he does not know whether to multiply or divide, he is not educated. Nor is he if we so teach him that he knows that he ought to multiply or divide, but knows not how to do either. I have no doubt that much more time is spent upon arithmetic than ought to be, but I do not assent to the remedy proposed; and if we are to "advance backward," in the language of a new-fledged captain, I desire that it shall at least be "with measured step and slow."

I began my teaching before the philosophy of things was taught in the section of the State in which I lived, and arithmetic was studied, I dare not say was taught, in several of my schools while I knew nothing but processes. The definition was, "Arithmetic is the *art* of computing by numbers," and never was a treatise upon any subject truer to a definition, for there was not a particle of science in it. I look back upon those days of school, with the horror of "the burnt child," and with the conscience of our mourning over lost opportunities, and therefore I hope to be pardoned for bringing up again this trite subject and for discussing it from my standpoint.

So far, then, as I discuss the question of the "ability and time" of the pupil, I take the affirmative, and in my "plea for the innocents," I put the blame upon authors and teachers. "The fault, dear Brutus, is not in our stars, but in ourselves that we are underlings."

We abuse the children when we ask them to explain first truths — to give a reason, when no reason can be given. I heard a teacher in a Primary School ask a little girl why one with four made five, forgetting that neither teacher nor pupil could tell that. So we ask why half of six is three, or ask for an analysis of the multiplication table, or the division table; for example, 3 times 3 are how many; 3 times 1, etc. 8 are how many times 2? 8 are as many times 2, as 2 is contained in 8, which is saying, 8 is as many times 2 as it is times 2. Wonderful!

Again, in the midst of the pupil's reasoning, we break the thread of connection or criticism, and when he cannot gather up and unite the two ends, we say he cannot reason.

Example. A girl. If five children can sit, etc. This is made much worse where we require the child to state the problem, and solve it without the aid of the book, and so divide his attention between the *conditions* of the problem and the *analysis* of the problem, and compel him to hold both in mind. The time for the exercise in *language* is when the problem is solved.

Again, we teach the child nonsense, and then wonder that he does not distinguish sense from nonsense. Take this question. How many hours would it take you to travel 10 miles, if you travel 3 miles in an hour? It would take as many hours, as 3 miles is contained in 10 miles. I quote from an arithmetic and its key, and ask how many hours is 3 miles in 10 miles. I quote again. A man bought 30 apples, at the rate of 3 for a cent; how many cents did they come to? and the key says, they cost as many cents as there are 3 apples in 30 apples; that is 10 cents. Hence we see that 3 apples are in 30 apples, 10 cents. I quote from another author, and to save time, quote only the conclusion. "Therefore there must have been as many beggars as 2 is contained in 12, which are 6 beggars." Especially remember: a well-educated and successful teacher, in her written examination upon a question which asked her to find how long time 3 men would require to mow 7 acres, after finding that they could mow 5 acres in one day, wrote that it would take them as long as 5 in 7, and I asked how long is 5 in 7. The child is asked how many pounds of cheese, at 9 cents a pound, can be bought for 27 cents, and is allowed to say as many pounds of cheese as 9 cents is 27 cents. Some authors state these things better, but just such statements as these are made and accepted in many and many a school in our State.

Again, we give the same reason for taking two courses, the one directly opposite to the other. If we are changing £ to s. we multiply by 20, because 20 s. make a £; and if we are changing s. to £, we divide by 20, because 20 s. make a £; and so, as whatever we do, we do because 20 s. make a £, is it strange that the child does not see from the reasoning whether to do this or that?

Again, we teach the pupil to put two things together as premise and conclusion, when the latter does not grow out of the former. The logicians call this, I believe, a *non sequitur*. Take for example this question. If 1 hat costs five dollars, how much will 3 hats cost? We teach the pupil to say, If 1 hat cost five dollars, 3 hats will cost 3 times as much. Now the fact that 3 hats will cost 3 times as much as one, does not depend at all upon one hat costing five dollars. If one hat cost any other number of dollars, 2 or 3, or 4 or 8, 3 would cost 3 times as much. We might as well say if it is pleasant to-morrow, day after to-morrow will be Sunday. If to-day is Friday, day after to-morrow will be Sunday, whether it rain or shine to-morrow.

Again, we do not bring distinctly before the pupil's mind that from which he is to reason, naming it first, and that towards which he is to work, naming it last, but we make him begin where he ought to leave off. To illustrate.

How many thirds are there in 5. We teach the child to say, If there are 3 thirds in one, in 5 there will be 5 times 3 thirds, etc.; and the child puts it, If there are 3 thirds in one, in 5 there will be 3 times 5, and there is no reasoning in it. Now that from which he is to reason is the unit, and that towards which he is to work is thirds. If, then, we teach him to say since, not if, there is no doubt about it, since in *one* there are 3 thirds, in 5 there will be 5 times 3 thirds, he will see much more clearly *from* what and *towards* what he is working.

Another example. Nine is $\frac{3}{4}$ of what number? We teach the child to say, If 9 is $\frac{3}{4}$ of some number, $\frac{1}{4}$ is $\frac{1}{4}$ of 9, and $\frac{4}{4}$, etc. But 9 corresponds to the number we are seeking, and should not be named first; and the unit, or the fraction of the unit, is what we are to reason from, and should be named first. If $\frac{3}{4}$ of some number is 9, $\frac{1}{4}$ is $\frac{1}{4}$ of 9, and $\frac{4}{4}$, etc. In concrete numbers we do the same thing. If $1\frac{1}{2}$ yards will make a cape, how many yards will make 3 capes? If a clerk can copy 5 pages in an hour, how many pages can he copy in 8 hours?

Again, we start the pupil in one direction when the goal lies in the opposite, and to reach it, he must either turn about or go backwards; and when we turn him about and he becomes confused, we say he does not know the points of compass; and when we compel him to go backwards and he stumbles, we say he can't see. There is one class of examples in which we habitually do this. For instance. If 8 pounds of butter cost 2 dollars, how many pounds can be bought for 3 dollars? We teach this analysis. If 8 pounds cost 2 dollars, 1 pound will cost $\frac{1}{8}$ of 2 dollars, or $\frac{2}{8}$ or $\frac{1}{4}$ of a dollar. True, every word of it; but there's no question about the price of butter; and having gone so far in the wrong direction, how shall we become right? The question is how many *pounds*, not what price; and we no more need to know the price of butter, than the color of the cow that gave the milk, or the nationality of the maid who churned the cream. The analysis was *true*, but not *good*. We are told what is true of 2 dollars, and are required to find what is true of 3. If 2 dollars will buy 8 pounds, 1 dollar will buy $\frac{1}{2}$ of 8 pounds, or 4 pounds, — and 3 dollars, 3 times 4 pounds, or 12 pounds. The question asked is, how many pounds, and from the first we have worked towards pounds. We do the same thing with fractional numbers.

To a company of fifty teachers I gave this: If $\frac{3}{4}$ of a pound of tea cost $\frac{1}{4}$ dollars, how much of that tea can be bought for $\frac{3}{4}$ of a dollar? And between twenty-five and thirty of them found, or tried to find, the price of a pound for the unit of measurement, rather than the quantity one dollar would buy. This tendency to ask *one* question, and reply to another, is strikingly seen in problems in compound proportion, whether we solve them by analysis or by proportion. If the question is, how many *horses* can be kept for a certain number of days upon a certain number of bushels of oats, one will tell how long the oats will last the horses, another how many bushels the horses will eat, and some will mix the two in the same problem. I once gave to a company of forty teachers this problem: If 6 horses can be kept 16 days on 21 bushels of oats, how many horses can be kept 12 days

9 bushels? Twelve of them worked towards *time*, trying to answer the question of how long; five towards quantity, the question of how many bushels; and three towards both, trying to answer I know not what question.

When I hear the solution of such problems, I am often reminded of the experience of a deaf man in my younger years. He had a beautiful horse that he was very proud of. We would ask him, How old is your horse? and he not hearing the question, would say, "See his ears." We would ask, What did you pay for him? "What a neck he has," would be the answer. Where did you find him? "How wide he is between his eyes;" and we teach scholars to analyze oftentimes with nearly as little reference to the questions asked as the deaf man to our questions.

We fail to appreciate the power of directness, and therefore lose in clearness and vividness of impression. We lose also in time; and I fully believe that time is to be saved, not by teaching less philosophically, but more philosophically.

We can save time in the recitation, by omitting the *therefores*, unless they come so spontaneously that they are stated before we can check the pupil, for a *therefore said*, but not *seen*, is of no possible value, while one *seen* though not said is of great value.

We lose time also, when, having taught a principle fully for its own sake, that the pupil may understand it thoroughly, we teach it in the same way, require the pupil to unfold it with the same completeness, when it occurs incidentally in a problem.

To illustrate. I was present at the recitation of a class which in two years was to be fitted for the High School. The lesson was in the addition of compound numbers. The examples involved only two or three quantities, but five or six denominations in each. The pupil called upon, added the quantities in the lowest denomination, then reduced it to the next higher, and analyzed the reduction as fully as he would if that was the subject under consideration. Then he did the same thing with the next denomination, and so on through the entire example. Then another took an example in the same way. Then the review lesson of two examples was called for and the process repeated, and then two more examples assigned for the next day's lesson. Feeling that the class ought to work a page of such examples in the time allowed, I asked, Do you give only two for a lesson? and the reply was, it is as many as the class has time to recite as thoroughly as I wish to have them; and so time was lost because the teacher did not recognize the difference between a principle to be taught, and a tool to be used.

We lose time by requiring the pupil to so study his problems that he can carry them in his mind without the aid of the book in the recitation, practically forgetting that the ability to repeat the whole book, shows only that we have learned *an* arithmetic, and not arithmetic.

Much time also is lost upon a large number of problems under different heads, but involving only a single principle. We have ordinarily about fifty pages of our arithmetics devoted to denominate numbers, — the reduction, addition, subtraction, multiplication, and division of compound numbers.

When a pupil is once made to understand the principle, and the application of it to one or two of the weights or measures, if in practical life he needs to know the rest, he can work it out for himself.

Much time also is lost by lack of facility in adding, subtracting, etc., and in correcting mistakes ; and to guard against this, I would have the child taught to add and subtract, multiply and divide, also measures and multiples before he *begins* to study arithmetic, even as early as the second year of his school life ; and I would have an exercise in them, purely as an exercise, every day if possible, till he enters the High School, and even longer. Thus could we secure facility and accuracy, two very important things in practical life.

***HOW TO TEACH LANGUAGES SO THAT THE PUPILS
SHALL GAIN THE GREATEST AMOUNT OF KNOWLEDGE
IN THE LEAST TIME, WITHOUT OVERWORK.***

METHOD AND DETAILS TO SECOND CASE.

BEFORE giving method and details of this case, I will describe the circumstances under which it came under my treatment.

A little more than a year ago, a Frenchman about twenty-four years of age came to my house and asked me whether I was teacher of languages. He said, upon an affirmative answer on my part, that he could neither read nor write his own (French) language, and should like to take lessons, in order to learn reading and writing. How much would I charge per lesson ? Upon inquiry, I found that he was a common day-laborer, and if he could spare anything of what he earned, he was expected to assist his parents in Canada. I saw that he was very anxious to learn, and so I promised to give him lessons without charge, if he would study as I would direct him. He gladly consented to this, and I set him to work in the following way.

I took an easy French conversational book, and read to him to see whether he understood what I read. I have to mention that his French (Canadian) was considerably different from my French (continental) as far as pronunciation is concerned. I did not allow him to look in the book at the first reading, as I wished to have his whole attention. When I saw that he understood all, then I put the book before him and read the same passage slowly a second time, pointing at the words while I pronounced them. Then I read the same passage a third time, proposition after proposition, and made him pronounce every proposition after me. In this way he learned the propositions as wholes, and the words composing each proposition as wholes. I mentioned above that I read to him the subject I wish to be studied, so that he might grasp the subject as a whole, in order to be prepared for the parts composing this whole. Just as I had asked him to listen very attentively at the first reading, so I urged him to use his eyes very diligently at the second and third readings. Now I told him to study this passage so that he could read it well in the next lesson. In the next lesson I helped him over difficul-

ties in the first lesson, assigned a second passage, and also the first passage to review, etc. After a few lessons assigned in this way, I taught him the letters, but only phonetically. He soon fixed the letters. I made him also copy the letters, each of which I made carefully myself several times, so that he could see how it was made, and I made him write each letter before my eyes until he made it well. In the beginning, I required of him to write only the small letters of the alphabet, and after he could make them all (after nine lessons), I asked him to copy from the book. I enclose herewith his first copy, which speaks for itself. He said that he copied this in about fifteen minutes. Has not learned the capitals as yet.

la mère de votre papa est votre grand mère le père et la mère de votre maman sont votre grand père et votre grand mère. le frère de votre papa est votre oncle la sœur de votre papa est votre tante, le frère et la sœur de votre maman sont votre oncle et votre tante vous êtes le neveu de votre oncle l'enfant de votre papa et de votre maman est votre frère ou votre sœur l'enfant de votre oncle et de votre tante est votre cousin apportez à grand papa sa canne pour lui aider à marcher mettez le fauteuil auprès du feu pour grand maman votre tante a tricoté ces bas pour vous demandez à papa de jouer cache cache avec vous bachez vous sous le tablier de maman quand votre oncle viendra vous irez promener sur son cheval partagez votre gâteau avec vos frères et vos sœurs nous en verrons chercher vos cousins pour jouer avec vous nous aurons toute la famille ensemble combien avez vous de doigts mon petit voici quatre doigts à cette main et quel est celui-ci le pouce quatre doigts et le pouce ce la fait cinq et combien à l'autre main il y en a cinq aussi qu'est ce que c'est que ceci c'est la main droite.

We kept on reading and reviewing; then he learned to write the capitals in the same way as he had learned to write the small letters. After twenty-four lessons, he could read any ordinary French with ease, and write a legible letter (of course not without misspellings) to his parents. He soon had to leave for home on account of family affairs. I never saw so much gratitude, gladness, satisfaction, and pride, as I saw in the countenance of that young man when he departed. How well was I repaid!

THIRD CASE.

How to teach Greek so as to enable the pupils to begin to read Xenophon's *Anabasis* after about twelve lessons. For method and details, see "Teacher" for September.

FRANCIS H. KIRMAYER.

MEETING OF HAMPDEN COUNTY TEACHERS' ASSOCIATION.

THE Twenty-seventh Annual Meeting was held at Springfield, on Friday and Saturday, May 15th and 16th.

The first session was opened Friday morning at Institute Hall, at 9½ o'clock. The President, A. E. Gibbs, of Westfield, was in the chair. Rev. A. D. Mayo, D. D., offered prayer. The records of the previous meeting were read by the Secretary, E. W. Norwood, of Brimfield.

After the appointment of the usual committees, and the reading of the report of the Treasurer, Charles Barrows, of Springfield, the following question was discussed:—

“Viewing education as the work of a copartnership, consisting of superintendents, school committees, teachers, parents, and other citizens, what is the province of each party, and to what extent does success depend upon their action severally?”

A. P. Stone, LL. D., superintendent of schools in Springfield, was the first speaker. He thought that the question would have been more appropriately introduced by a member of the school committee, inasmuch as that body holds all the power over school matters. No one else has any power, save as it is delegated to him by them. It is only until quite recently that the law gave committees the right to delegate any of their power to a superintendent. The superintendent is only the executive officer of the committee.

Success is seldom the result of a single agency. In a steamship the man down in the hold, who has his hand on the throttle-valve, may claim that he is the moving power,—that the vessel goes or stands still as he may elect. The man at the wheel in the pilot-house may say, that were it not for the constant exercise of his skill, the ship would soon be dashed upon the rocks. The captain may assert that all who consider themselves so efficient and essential in the management of the ship are merely servants obedient to his authority. The service of each is needful. So various agencies contribute to the success of our schools: the superintendent is one. Schools are good or bad as they are supervised. Supervision is regarded as essential in banks and in the management of railroads. Every good teacher desires supervision. How shall supervision be exercised? Educated men of leisure would make good supervisors, but there are few of them.

Committee men are generally too much occupied with other work. One man better than more, because unity of method can better be secured by one than by many. A superintendent will save more than the amount of his salary.

Mr. H. B. Lawrence, of Holyoke, spoke upon the province of teachers. He claimed that there is best success in securing discipline where teachers are most independent. The teacher must be the representative of authority in the discipline of the school, and should not be dictated to by a superintendent. Good teachers should have the largest liberty. No one else can so well understand the wants of the pupils. He must lead his pupils; and to do this well, he must study them not less than his books. No officers can impart the needful knowledge or tact. There is too much red-tape,—too much machine work. We should aim more at results. The best methods are those found out by the teacher himself in actual work. There should be no mere imitation; this is a prolific cause of failure. There should be sympathy between teacher and committee. Teachers are too much given to consulting policy. Teachers should confer freely with parents. Mere accessories do not ensure success. Individuality is of greater importance.

Rev. A. D. Mayo would have a kind of pastoral relation between parents

and teachers. More general interest is needed. Our institutes should have a missionary meeting connected with them. Educational influence is now moving from the west eastward. But everything tends towards grave errors. A crusade is needful to keep the people right. Reform is needed in our public school system, somewhat like that at which the civil service measure is aiming in politics. New York has abolished the political board of education and put a committee in its place. Politics must be kept out of educational matters. Parents have a right to demand a place. Teachers must know what is in the home. Teachers have a claim on the parents; they should have an opportunity to make their acquaintance.

Teachers should have all the authority their ability warrants. Three things essential: Careful training of teachers; better pay, and sharper discrimination between teachers; efficient supervision, and the whole backed by public sentiment.

Rev. J. W. Harding, of Longmeadow, said: As is the citizen so is the teacher. Larger intelligence is necessary to a just appreciation of the wants of the community. The ballot-box must be watched, that the very best men may be appointed. A correct public sentiment must be created. We must keep out of the ruts; must keep our just demands before the people. We need more sympathy, more progressiveness. Teachers need more appreciation from the community.

AFTERNOON SESSION.

Prof. J. G. Scott, of the Westfield Normal School, presented a paper on "Natural History in Common Schools."

Natural History is related to all the phenomena of life. The advantages arising from its pursuit are physical as well as mental. It cultivates the power of observation. Children are good observers, but are superficial, and need training. Our present courses of study are deficient in this.

The study of Natural History is beneficial physically, because it draws away the attention from the exercise itself. It cultivates observation, reflection, and, to some extent, language. It affords the best moral discipline, and begets self-respect in the pupil.

Its practical value is shown by what it has already made known in relation to the characteristics of injurious insects.

No adequate provision has yet been made for this branch. The work may be limited, but it will turn pupils in the right direction; it will bring them face to face with nature.

The discussion upon the question: What provision should be made in our courses of study and allotment of work, for differences in mental power and physical endurance of pupils of the same grade?—was opened by L. H. Marvell, superintendent of schools in Holyoke.

He said: There are some objections urged against the graded schools. The teacher does no thinking outside the work of his grade. About three pupils in a hundred are dunces, and cannot do the work. When pupils cannot keep up with their class, they should be placed in a school where they

will receive special instruction. It would be well to have one room ungraded to which such pupils can be transferred.

The work should be a little less than the average pupils can do. There should be much oral instruction. Books should be provided to occupy the time of the brilliant scholars.

Miss Ellen M. Strickland, of Springfield, said: The earnest inquiry of the public is: Cannot something be done to give pupils better command of their resources? The average duration of school life in Boston is four years. In Springfield more than one half of the pupils are in the primary schools. She raised the inquiry whether we cannot wisely introduce into our schools the cutting of garments and kindred useful arts. The experiment in Boston shows that the girls who spend a portion of their time in these manual occupations learn their lessons as well as those who attend to nothing beside the usual school exercises. Half-time pupils do as much work as those who are in school the whole day. Work and learning should go together. The pupil should be shown that his book knowledge has a purpose.

Pupils, during the last year of the Grammar School, and through the High School, might be allowed occasional rest if it were needed, without causing them to fall behind, as they could make up and be ready for examination.

Mr. S. F. Chester, of Springfield, thought that dull scholars are the element of difficulty in this problem. It would be better that they should go over the study a second time, or that special schools should be provided for them, than that they should retard the course of those who are able to go on successfully with greater rapidity. Those who are physically incapable of doing full work should be allowed to take less than the full quota of studies.

Mr. H. C. Hallowell, of Chicopee Falls, thought that we attempt to grade our schools too closely.

Prof. J. W. Dickinson, of the Westfield Normal School, presented a paper upon "Classification and Course of Study for Ungraded Schools." He maintained that the classification in most of our ungraded schools should be into primary, intermediate, and grammar divisions. The course of study for the primary division should furnish food for the activity of the perceptive powers, while linear drawing should be taught to aid the pupil in describing what he observes.

Object-teaching is a part of the primary course of study, and the teacher must look forward to the intermediate school in order to prepare his pupils to enter that school. The discipline of his power of observation which the pupil gets in the primary, prepares him to advance to higher studies in the next division. There should be object-teaching in every department of the ungraded school, that the pupil may be thereby prepared to enter upon his scientific studies with a mind well stored with facts gained by observation.

The teacher should aim to teach a plan of study rather than many facts or much science; to train the pupil's mind to think and behave properly, rather than to attempt to impart much knowledge.

Our teaching is too mechanical, and more attention is paid to forms than to the philosophy of teaching.

The evening session was held at the First Church. In the absence of the President, Mr. Hallowell, of Chicopee Falls, presided. The evening was occupied by a lecture from Rev. M. C. Stebbins of Springfield. A good audience listened attentively an hour and a quarter to a discussion of the question, — What is the matter with our Public Schools?

The Association met for its final session Saturday morning at 8½ o'clock. The nominating committee reported the following, who were unanimously chosen as officers for the ensuing year. President, A. E. Gibbs of Westfield; Vice-Presidents, J. G. Scott of Westfield, and H. C. Hallowell of Chicopee Falls; Secretary, E. W. Norwood of Brimfield; Treasurer, Charles Barrows of Springfield.

Rev. Charles Hammond then read an able paper upon "The relation of High Schools to Schools of a lower grade." He first considered the character and province of High Schools, maintaining that they are both *sui generis*, and peculiarly American. There is nothing corresponding to them, either in the English or European system of schools. The High School is the upper grade of our American system of public schools, and has no direct or necessary relation to our scientific schools and colleges. Statistics will show that not one in a thousand of the children in our public schools will go to college. This shows conclusively that the course of study in our High School should not be shaped with reference to candidates for college. To support this opinion he quoted President Eliot of Harvard University. There is a gap between the public schools and the college which should be filled by well-endorsed secondary schools.

Mr. E. H. Rice of Chicopee, claimed that there should be more attention paid to marking out the course of study for the schools below the High School, so that the proper quantity of work should be secured for a due preparation for the work in the High School. It should be expected that some work will be done out of school. There is need of larger recognition of this necessity on the part of parents.

It is, however, quite as important that special attention should be given to the quality as to the quantity of work. Pupils are too often taught to work by a rule, the reason of which they do not understand.

Mr. H. B. Richardson of Springfield, would have the work in the lower schools so arranged that pupils in passing to the High School should not be conscious of making any more of a transition than had attended their previous passing from one grade to another. He would not admit, even if Mr. Hammond's supposition were true, that only one in a thousand of all in the public schools go to college, that it does not pay well to have our High Schools do the work of preparing for college, since it is impossible to estimate the value of the service which a few thoroughly educated men render to the public.

A few others participated in the discussion, but the debate was cut short to give place to a teaching exercise by Mr. Geo. A. Walton of Westfield. He showed the need of a larger exercise of good judgment in the classification of pupils in many of our small ungraded schools. He had recently visited a school of eight scholars, in which there were six classes in reading; each

class was habitually called out with nearly as much formality as a military company on dress parade. This occasions great waste of time.

Mr. Walton then illustrated upon the board his method of teaching reading, by beginning with words; and also his method of teaching geography. The pupils should be taught to draw the outline of the state or country, mark off the division, locate important places, indicate the lines of rivers, and mountain ranges. Time should not be consumed in doing fine work on maps.

After the passage of the customary resolutions, the Association adjourned by singing Old Hundred. M. C. S.

WE wish to call attention to the advertisement in the "Teacher," of the Excelsior School Furniture Co. Their desks are in use in every State of the Union, and we are assured that they give entire satisfaction. The company have an excellent reputation for fair dealing, and are now offering unusual inducements to purchasers.

They furnish, also, globes, maps, blackboards, and school supplies of all kinds. We advise all purchasers to examine these desks, specimens of which may be seen at Thompson, Brown & Co.'s, 25 and 29 Cornhill, Boston.

INTELLIGENCE.

PERSONAL.

ELI S. SANDERSON, of Newton, graduates from the advanced or classic course of the Bridgewater Normal School. He had experience in teaching before entering upon the advanced course, and hence comes forth specially fitted for his work.

E. EMMA GROVER, a graduate of Bridgewater Normal School, has been appointed teacher in the Clark school for deaf mutes at Northampton.

HARRIET MORSE, of the class of '74, of B. N. S., has been appointed principal of the Grammar School at Wollaston Heights. Salary \$800.

MISS CLARA BARTLEY, for several years past teacher in the Eastern State Normal School, Maine, has closed her labors, having withdrawn from the ranks of the profession for duties more congenial.

CHAS. R. BROWN, formerly principal of the Phillips School, Salem, has settled in the practice of medicine in Lynn.

SARA E. KING, principal of the Oak Hill School, Newton, resigns her position at the close of the present term, after a service of five years in the school as assistant or principal.

MISS A. MESTEN is confirmed as teacher in the Winthrop district, Boston.

HELEN O. WYMAN, Lizzie A. Colligan, Mary J. Backup, Susan G. B. Garland, and Ellen R. Cole, in the Comins district, Boston.

WARREN T. COPELAND, widely known in the fraternity of teachers from his service in Milton and Watertown, as well as by his genial presence at the association, is doing temporary service in Cambridge.

JOSSIE A. KENNISTON is confirmed as teacher in the Dearborn district, and Ellen T. Noonan in the Norcross district.

L. F. WARD, formerly superintendent of schools at Northampton, has become principal of the Bellows Falls High School.

PROF. E. S. MORSE of Salem has received an appointment as instructor on mollusca at the Anderson School of Natural History on Penikese Island.

A. H. HEAP, the Amherst High School principal, will leave at the close of the present term on account of ill health.

PROF. CHAS. C. BRAGDON of Jennings Seminary, Aurora, Illinois, has been elected principal of the Lassell Seminary at Auburndale, to succeed the Rev. Chas. W. Cushing, whose resignation takes effect at the close of the present term. Mr. Cushing resigns solely on account of the continued ill health of his wife, and will accept a pastoral charge.

REV. DR. A. P. PEABODY of Harvard University gives the anniversary address before the young ladies of the Oread Institute at Worcester, next commencement.

PROF. YOUNG of Dartmouth College has accepted the invitation of the government to go to China with the scientific expedition to observe the transit of Venus.

EDWARD INGRAHAM, who has been superintendent of the State Reform School at Manchester for about five years, resigned last week, but whether he will accept the invitation to become superintendent of the Connecticut Reform School is not known. David Gillis, who has been one of the trustees of the institution for more than ten years, has also resigned.

THE BRIDGEWATER STATE NORMAL SCHOOL. — The graduating exercises take place July 17, at which time a class of twenty-six will graduate from the regular course and three from the special course.

THE Biennial Convention of the Bridgewater Normal Association will be held on Wednesday, the 15th of July. A biographical sketch of Marshall Conant, the second principal of the school, and several short memorial addresses will be given. This meeting will be of peculiar interest to members of the association. Mr. Boyden has been specially active in collecting information relative to the graduates, so that more can be learned of the alumni than ever before. The buildings and grounds have been greatly improved, making the attractions more than usual in many respects.

Mr. Thomas Barnes, of the Bigelow School, South Boston, is putting special labor into the arrangements, so that we may be assured that his fertile brain and executive qualities will assure a perfect programme well carried out.

CAMBRIDGE. — [The absence of the labors of the superintendent are seen and felt in many ways, but the added vigilance of the masters and the co-operation of the assistants keep the internal

working of the various schools from suffering perceptibly, and the increased interest of the various special or sub-committees make up in part the loss of supervision.

The great improvements made in the school buildings of the city show themselves in the increased facility and comfort with which the pupils and teachers work. The ventilation of Mr. Wheelock's school-room is specially worthy the attention of those who want to secure perfect circulation of fresh air without exposing the health.

The following appointments have been made: —

Carrie H. Smith in the Putnam school, at \$500; Julia A. Williams in the Gore School, at \$700; Isabella B. Tenney in the Thorndike School, at \$700; S. N. Chamberlain in the Dana School, at \$500; Valeria A. Stiles in the Felton School, at \$500; Maria S. Cudder as a temporary assistant in the Felton School, at \$100 for the rest of the year; Laura Wright as a temporary assistant in the Willard School, at \$500; Kate D. Richardson in the Putnam School, at \$600.

An order making Decoration Day and the 17th of June school holidays was adopted.

READING. — The graduating exercises in connection with the High School were of a specially meritorious character. They were somewhat varied by the introduction of a colloquy regarding the relative merit of Whittier and Longfellow as poets. Misses Sadie Dewey and Kate L. Brown were the leading speakers, though all the class joined in the discussion, which was able, racy, and in every way meritorious. Messrs. Whittier and Longfellow had been invited to be present, and each sent a characteristic letter expressing regret at inability to accept the invitation, the former adding a few stanzas written for the occasion. The whole was as unique as are the various designs of Mr. Cole to arouse enthusiasm and develop the original genius of his pupils.

HOLLISTON. — *Supt. of Schools.* At a special meeting of the School Board, held on Tuesday evening, Rev. R. G. Johnson was re-elected Superintendent of Schools, in accordance with the recent wise determination of the town to continue a system which has proved most satisfactory during the past year.

LYNN. — *School Committee.* A regular meeting of the Board of School Committee was held last evening, President Hill

in the chair, Miss Abb'e Grant and Miss Georgiana Lewis were elected teachers in the Holly Street Grammar School. Miss Mary L. Chapman was elected an assistant in the Howard Primary School, vice Miss Lewis resigned. The question of providing additional accommodations for pupils of the public schools was discussed, but no action was taken.

PORTSMOUTH, N. H. — Mr. Aurin M. Payson, Principal of the High School, has resigned his position, and has accepted the Superintendency of a school at Wakefield, Mass. We are informed that an able female preceptress, whom the committee have in view, will be invited to fill the duties of head teacher of the Girls' High School, with Miss Kate Hooper now of the Haven School of this city, as assistant. If this change brings with it the fruits that its friends anticipate, it will without doubt place our High School on a par with other schools in New England of like grade.

A WORK on Harvard College, soon to be published, will be one of unusual interest, both from the nature of the subjects treated and the character of the writers. The book will embody a history of the college, written by Samuel Eliot, which will treat of former customs of the various societies that have flourished at different times, of the papers, magazines, and publications of the undergraduates, dealing more especially with the social life of the students, which as yet remains in great part unwritten; there will also be separate histories of the buildings. The work is to be illustrated by heliotypes of the buildings, society rooms, etc., and a few of the former presidents. Among the contributors will be the venerable J. L. Sibley, the librarian, who will give a history of Gore hall and the library; Oliver Wendell Holmes will give a history of the medical school and the old Holmes house; Col. Higginson, of the gymnasium; ex-Gov. Emory Washburn, of Dane hall; Asa Gray, of the botanic gardens; A. P. Cranch will write a poem on Memorial hall, while the rest of the programme is about as appetizing. The book will be published in the fall by subscription.

THE Hon. Thaddeus Fairbanks, of St. Johnsbury, Vt., inventor of the Fairbanks Scales, who has just erected an elegant building, at a cost of \$103,000, for an academy in his native State, has been created, by the Emperor of Austria, a

knight of the Imperial Order of Francis Joseph — the only instance, it is said, in which this honor has been conferred upon an American Exhibitor at the Vienna Exposition.

THERE are in this country, of school age, 14,500,000 children. There is annually expended for schools the sum of \$95,000,000, which is equal to one third of one per cent of the property, real and personal, of the whole country. We employ 221,000 teachers; and the National Government has already set aside for educational purposes, 140,000 acres of public land.

THE many friends of Prof. James K. Hosmer, formerly over the Unitarian church in Deerfield, and now a professor in the State university of Missouri at Columbia, will be interested to hear that he has received a most desirable appointment to a professorship in the Washington University at St. Louis, and will enter upon his duties there in the early autumn.

THE young ladies of Prospect Hill School, Greenfield, are cultivating athletic sports. Much of their leisure time of late has been devoted to the "national game," which they play with quite as much skill and more evident pleasure than is generally manifested by the masculine devotees to the bat and ball. The contending nines are designated respectively by jaunty pink and white caps.

J. H. WALKER of Worcester has just given \$2,000 to the Worcester Free Institute.

THE Town of Newport has voted to lease to the Union School District the old Town Hall and Court House building, for a term of ninety-nine years, for the nominal sum of one dollar, for the purpose of a graded school. This building is admirably adapted for the purposes of Intermediate, Grammar, and High Schools. The Prudential Committee, R. S. Howe, Edmund Wheeler, and George R. Brown, will immediately remodel it, making four schoolrooms for the different departments. The best school furniture will be provided for the same, and all the schools will commence the first June.

THE geological cabinet of the Connecticut literary institution at Suffield, with the large addition it recently had given by Rev. S. C. Chandler of Granville, Mass., the well-known geologist, is probably the best one in New England outside of the colleges. The gift of

Prof. Chandler is valued at \$2,500, though the donor has expended more than that in collecting it.

THE Rogers High School building at Newport, erected through the munificence of William Sanford Rogers, of Boston, at a cost of \$130,000, is now completed, and makes an elegant and imposing appearance.

OF the two hundred and thirty-four young men who have been connected with the Mass. Agricultural College since its establishment, about seventy are known to be engaged in agricultural pursuits, and nearly all are at work in some

industrial occupation. Next to farming, civil engineering is a favorite pursuit with the graduates.

A \$1,750 school-house is to replace the one recently burnt in the Pochassic district of Westfield.

THE application for admission to the Anderson School of Natural History at Penikese number nearly one hundred and fifty, though not more than a third of that number can possibly be admitted. The necessary buildings have been erected, but there is very little money left to carry on the institution.

Books.

THE BOSTON UNIVERSITY YEAR BOOK. VOL. I.

We propose in our next number to say something of this young institution, which has begun its work so quietly, and which promises, by its wise management and thorough appreciation of the wants of the community, to become, at no distant day, one of our most efficient agencies for the promotion of sound learning.

BOOKS RECEIVED.

"MY VISIT TO THE SUN." By Lawrence S. Benson. James S. Brunton, N.Y.

ILLUSTRATED CATALOGUE OF CHIVALRIE, WITH THE RULES OF THE GAME. West & Lee, Game and Printing Co., Worcester.

PROGRESSIVE AND PRACTICAL METHOD FOR THE STUDY OF THE FRENCH LANGUAGE. By F. Duffet. Part 2d. Wilson, Hinkle & Co.

TWELVE LECTURES ON THE HISTORY OF PEDAGOGY. By W. N. Hailman. Wilson, Hinkle & Co.

OLD AND NEW, LIPPINCOTT, OLIVER OPTIC, AND THE ATLANTIC.

THE MASSACHUSETTS TEACHER.

[A. P. STONE, Editor for August.]

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DULL SCHOLARS.

WE confess to a feeling of sympathy with the class of pupils included under the caption of this article. It is a fellow-feeling, perhaps, but it is none the less sincere for that reason. Dull scholars are a class in whose behalf somebody should "rise to a question of privilege." They are not in favor with the present generation of teachers,—are not, therefore, most likely to have justice done them. We respectfully submit that their case is a hard one. They have more than their share of the hard usage which the rising generation of American sovereigns is called upon to endure; they have, in a measure, lost caste with the profession of teachers, and are under a cloud. Now, it is bad enough for a pupil to be sluggish, without being told of it continually, and called a blockhead in the presence of class or school. Such pupils have feeling, if not brilliancy of intellect, and it certainly cannot conduce to their comfort or improvement to have their deficiencies held up to them as a matter of reproach. In truth, the great majority of dull scholars, so called, are simply those whose perceptions are not rapid, whose intellects are slow in their operations, and who cannot readily take in and grasp a question in all its various bearings and relations; but it does not follow from this that they are a hopeless class, or that they are not worth caring for. Mind is not a matter of quantity, and with this class of pupils it is not so much a question of ability as of readiness. Of course, we are not speaking of those whose

manifest natural deficiencies entitle them to be included under an entirely different class. By the term "dull scholars" we mean neither idiots nor imbeciles: we mean simply, dull scholars. And dull scholars, though dull, are not minus quantities. Generally speaking, they have capabilities for more than respectable achievements, if they can have time for development. Many distinguished scholars, and men of attainments and solid worth, have in their youth been characterized by this same sluggishness of mind, and have been kicked and cuffed by their teachers, and branded by such epithets as dolts, numbskulls, dullards, simpletons, and dunces. If the petulance and impatience of the teachers of Walter Scott and Liebig had decided the destinies of their pupils, English Literature and the science of Chemistry would have lost two of their brightest lights in modern times.

In our schools, as in society, that which shines and glitters is too apt to be the object of undue admiration, and to receive more attention than it deserves. The pupil of ready memory, of easy address, and general precocity, is too often the idol of the school, of teacher and fellow-pupils. Teachers pride themselves in having such pupils in their schools, and are, of course, inclined to pet and praise them; thereby losing their sympathy for pupils of the opposite qualities, and acquiring, and often exhibiting, a disrelish for the labor necessary for the instruction and management of those whose claims upon their teachers should never be ignored. That teachers should enjoy brilliant pupils is not strange; but that they should neglect dull pupils, and deprive them of their share of instruction and attention, is not creditable to their sense of justice or to their interpretation of the teacher's duty. Fairness to all in a school means attention and help bestowed upon that school according to the wants of its several members. Precocious pupils of brilliant parts need but little assistance; for the most part, they are able to go alone. But the weak and the timid need assistance and encouragement. Those pupils who are conscious that their minds are more or less sluggish, should never be allowed to suspect that they are a burden to their teachers, or that they are to be kept in the background on account of their inferiority. Teachers too often lose sight of the noteworthy fact, that dull scholars are not to blame for their dulness, any more than they are for the color of their

hair. A teacher who should treat his pupils according to their stature, favoring those who are tall, and neglecting and snubbing those who are short, would act upon a principle not greatly different from that which seems to influence those who exhibit such marked partiality for good scholars, and such noticeable dislike and neglect for those who are dull.

The question of likes and dislikes is too prominent in our schools. If the schools are to be managed to gratify the personal whims of capricious teachers, the rights of pupils may as well be counted out of the case. But if teachers are to be employed to perform a certain well-understood work for the people, then teachers should, before making an engagement, ascertain what that work is, and then ask themselves if their sense of duty, their sense of loyalty to their employers, can be relied upon for the faithful performance of that work.

The silly remark is often made by persons that they should like to teach a school of picked pupils, — all of that type known as brilliant scholars. Such remarks do little credit to those who make them, and, in justice to the profession, we feel bound to say that they are most frequently made by those who have little or no experience in teaching, and whose appreciation of its duties and success in its work entitle their opinion to but little consideration. It is upon dull pupils that the teacher of ability and resources can best show his power; and we may further add, it is in classes and schools where there is a variety of talent, some quick and some slow, some brilliant and some dull, that teaching is most enjoyable. To teach a class of pupils *all* remarkably bright, would be like making a meal entirely of custards. That child best enjoys coasting *down* the hill who is obliged to carry the sled *up* the hill also.

It certainly behooves teachers to give attention to the subject of dull scholars. They are a class of pupils who are too often deprived of a portion of that education to which every child has a right. The blame does not, probably, all belong to teachers; but so far as it does pertain to them, they should, for their own sakes, and for the sake of the pupils concerned, see that justice is done to all. In the classification of the school, in the promotions, and in the recitation work, let all be treated with a due regard to their rights, and let all have a fair chance.

It is probably true that our schools are too often managed with reference to a system that is theoretical and artificial. There should be system in our schools, and the schools should be conducted according to a well-devised system ; but that system should be a judicious adaptation of the means of education at command to the wants of the community, having, of course, especial regard to any and all the circumstances of the case. The teacher's task is not an easy one. It has its trials and vexations ; but it has its pleasures also. The consciousness of doing good to those who are intrusted to their care ; of helping those who need help ; of cheering the downcast ; of helping to make the light shine upon the path of those whose life is not always a sunny one, — these are among the many encouragements for the faithful teacher.

Let justice be done to the dull scholars.

THE TEACHER'S POSITION IN AMERICAN SOCIETY.

THERE are two ways of getting position in American society. A young man may concentrate his whole manhood, for twenty years, upon the gaining of a fortune. He will probably fail ; only one in several thousand succeeds. But if he makes his fortune (and it matters little in what way he makes it), he can buy everything in America, except that manhood which makes a true gentleman, — that was never for sale in any of the markets of this world ; but that is not essential to what is termed position in American society. This man can buy office, can buy a palace, buy a handsome woman to preside in it, and all things to make it attractive. Everybody is glad to go to such a house, when invited ; and this man can probably go into any house he desires, for all doors open to the tinkle of a golden bell.

A young woman cannot easily earn a fortune anywhere ; but with a moderate capital of beauty and social tact she can become the first wife of a rich man's son, or not the first wife of the father himself. This is called social position ! The whole wondrous and elaborate structure of fashionable life in American cities means this : a small number of rich people living for their

own enjoyment, and turning the heads of multitudes of people not rich enough to enjoy it with them. They are not necessarily very foolish people nor very bad, perhaps neither better, nor worse, individually, than other classes. But the peculiarity of their social position is its essential selfishness ; it begins and ends in the selfish enjoyment and aggrandizement of all who belong to it. Thus it has no vital relation to any vital thing in America ; it has no opinions or principles, and in any great emergency has nothing to say ; and yet, the vast majority of our aspiring people would give all things, even their manhood and womanhood, to find themselves once within this sacred pale.

There is another way of gaining social position in this country. A young man or woman can enlist in some work of vital importance to the people's life ; something that develops industry or adds to the comfort and prosperity of the people ; some profession that stands in close relation to the people's higher life ; some permanent interest, philanthropic, civil, social, educational, religious, on which depends our national success. A long and faithful devotion in any service of real value to the people will ensure respectability and gain sincere friends in society. Eminent services of this kind are a sure road to the only permanent social eminence in this republic. A family that stands upon its money only lives while its money lasts, and fashionable society is a dissolving view in which few of its members have permanent renown ; but real service of the people confers a position entirely independent of circumstances in life. Poor or rich, the man or woman who has wrought a notable and permanent good for society becomes a constant social power. Wherever is found one man thus absorbed in unselfish toil for his country's good, there is a luminous centre of the best American life, inspiring everybody within its range. Wherever the least little school-mistress is consecrating body, mind, and soul to her little flock, there is a sacred place in society, from which will go forth a social influence whose breadth can no more be computed than the influence of spirit itself.

The most peculiar, and so far the most influential, of our American institutions is the people's common-school. Other countries share with us the blessings of constitutional government ; every civilized nation enjoys the Christian church ; most

of them enjoy it in every form of its creed and polity ; the higher training that comes from universities, literature, and art, and the most elaborate social refinement, is still the special privilege of countries older than our own : but the Northern United States are alone in the full enjoyment of the people's common-school. The people's school in England is the poorest thing in England, and is chiefly in the hands of the rival religious sects. In Scotland the people's school is far better, but essentially under the control of the priesthood of one religious sect. In every Catholic country the education of the people is in the hands of the Catholic church. In Protestant Germany the people's school is a government institution, the people's educational police, — like all government affairs wonderfully administered to make intelligent subjects of a powerful empire. Only in the United States has the common-school been the people's institution, established, paid for, controlled by the people, and always administered in the interests of republican society.

So the path to the most peculiar and really the most excellent position in true American society, lies through the door of the common-school. If there be a class in this country whose influence exceeds that of all others, which is now in a position to do more for the country than all others, it is the teachers in the common-schools. This body of young people, a large majority of them young women, will have more to do in forming the minds and characters of the generation that is to establish the new order of American affairs than any other class. In their presence the best children of the Northern States spend the best months of their six most impressive years. No class has such an opportunity to fashion the national character ; indeed, in numberless instances the teacher is the spiritual father or mother of the little one whose natural parents have failed to be the parents of the life of its soul. I do not propose to argue this point ; but the next fifty years will demonstrate that I am right. I do not assert that the common-school teacher will always retain this opportunity. With the rising intelligence of the masses, other sorts of instructors will be more in demand. But just now, in the formative state of our new republican civilization, the most imperative need of the American people is a higher degree of that kind of popular intelligence, blended with moral discipline, which our common-

school only imparts. The teacher prepares the field for the journalist, the author, the artist, the statesman, and the teacher of religion. So the young men and women to whom the children of America are now intrusted are now the class in which we are all most deeply interested ; whose position is really most important in American society.

If the people do not appreciate this fact as they ought, the fault chiefly lies at the door of the teachers themselves. The people do show the highest appreciation by placing their children under the almost despotic power of this class. The majority of American teachers are not parents of children, and they cannot know the feeling with which the most ordinary father or mother intrusts a child to any teacher during its most sensitive years. No parent at heart believes any human being can love or so well care for the little darling as those to whom God has given it ; and I confess no daily spectacle in this country is so affecting to me as the faith of the parents of the thousands of little children who are sent to our common-schools. There is no such faith in any church in the land ; no such in any class as these parents repose in the common-school teacher. When I hear our teachers complain of social neglect, I am tempted to ask, "Pray, what evidence of social confidence do you need?" These families might invite you to their social companionship ; might make you their personal friends ; might give you their money : but now they give you the very treasure of their hearts, their little children, through the most impressible part of their lives. They place them practically under your despotic control, through the school-hours of the year, with only a difficult and remote opportunity to interfere with your administration. The souls of their darlings are in your hands ; and when I have given away my child to be instructed by man or woman, I have given the last proof of respect and confidence. If there is a teacher in America who does not feel this, it is time the Republic were relieved of the services of one so shallow and selfish as to value a few outward demonstrations of respect above the last proof of human confidence.

But there is a growing feeling among the better portion of our people, that this class of American teachers must do far more than ever before to justify this popular faith and to retain this ex-

alted position. Every American institution is yet an experiment ; every professional class is always on trial before the high court of the best intelligence and virtue of the land. So far the common-school has done its work better than anything in America ; and the people are ready to give their money and their confidence, in greater measure than ever, to make it the grandest thing which our expanding necessities require. But they will demand more, far more, of the teachers in this school than ever before. They will demand, and will not be denied, the highest possible qualities of mind and of heart, of skill and of character, in those who stand so near the nation's life. They will give the teachers enlarged opportunities to fit themselves, at the public cost, for their arduous profession. They will give them salaries sufficient to support them in respectability and comfort. They will make the public school-houses the best houses in America. They will give the young men and women as much social attention and public honor as they deserve. All these things will surely come, and there is not the slightest need that our teachers should leave their legitimate vocation of instruction, to haunt lobbies or "pull wires" for their own personal welfare. The people understand them rather better than they understand themselves. All honor will be given where honor is due.

But the people now demand two things of you, teachers, and you must meet their expectations, if you wish to remain in the high places you now attempt to fill :

1st. They demand increased knowledge and skill in your profession. There is nothing done in America that requires the fine intelligence, the experience of human nature, the personal and social tact demanded in your profession. To instruct the mind and train the character of one child is the noblest work done upon earth ; to be the teacher, the guardian, the exemplar of fifty children, year after year, is such an office as demands the utmost skill of man or woman. There is no end to the mischief that an ignorant, bungling, untrained teacher can inflict on children and society : there is no limit to the achievement of a master workman in this illimitable field. If there be a teacher now satisfied with low intelligence, a torpid mind, a clumsy manner, a happy-go-lucky style of work in the school-room, let me say that the time is rapidly passing when such faithless and crude labors will be tolerated.

Everything now tends to skilled labor. All the trades' unions in Christendom will fail to elevate the mechanic until he makes himself a better workman ; for the world will never pay so much for poor work again as it has in the past. The doctors, the lawyers, the clergymen all understand that their position depends upon the quality of their work. The people have resolved to have skilled labor in the common school-room. The children who are to shape this republic are too precious material to be experimented upon by educational quacks, or ruined by barbarism, stupidity, or conceit in the teacher's desk. It is utterly useless to resist this demand. Every teacher now employed should devote every spare hour to faithful study and general professional improvement. No young person should presume to enter the profession without the most ample preparation at command. It may be hard upon many a faithful worker, but the emergency demands a relentless policy of purging the American school-room of incapable instructors ; and what the people discover to be essential will surely be done.

2d. The people demand, beyond this, the consecration of the whole manhood and womanhood of every teacher to the great office of public instruction. The day is passing when this profession can be a general receptacle for all kinds of young people, to be used to fill up a few years of inefficient life. If a young man wishes to pay his board while he studies medicine or law, or applies for the situation of merchant's clerk, he will soon find the school-room is not open to men with such a purpose. If a girl wishes to relieve her parents of her support while she waits to be sought in marriage, she must go elsewhere for employment. Public instruction in America cannot be conducted by persons who come to it with half a mind, regard it a hateful drudgery, and toil with mechanical stolidity, while the soul is far away. It demands the complete consecration of all the human powers ; it is a thing to work up to, to pray over, to purify oneself for ; and only the teacher that works in such a spirit can know the grandeur of the office or behold the wondrous results of fidelity. Of course it is honorable to work everywhere ; and while our nation was young and society crude, we were obliged to use the best that could be had for teachers. Many of us worked in the school-room, in our youth, as well as we knew how ; and we

hope we did the people no vital harm. But new days demand new agencies ; and the time has now come when nothing less than lofty manhood and womanhood, joined to thorough knowledge and skill, can satisfy the people's need.

Not long since it was my privilege to spend a half day in what is probably one of the most complete training-schools in the country. In the upper room of a well-constructed school-house, I found a quiet, self-possessed young woman, standing before a group of half a dozen girls, in familiar conversation upon their forenoon's work as teachers of the five hundred children in the rooms below. Their conversation ranged through the whole realm of the life of childhood, striving to analyze its faculties, comprehend its wants, and get into perfect sympathy with its mysterious inward life. Each of the girls told her experience with her class as earnestly as if she knelt at the confessional, under the eye of a criticism as decided as it was sympathetic and kind. Below, I saw the working half of the class of pupil-teachers conducting the various exercises of instruction. Through these rooms moved three critic teachers, noting everything, advising, preparing to report, in due time, to the quiet little lady above. In one room a charming model school was kept by an experienced young woman. One man with the title of Superintendent was responsible for the order of the little community, and assisted in the teaching of the older classes. I looked with a delight too deep for expression upon that beautiful spectacle of a school, where five hundred children were taught by these twenty girls, who themselves were learning the finest art of modern life. I marked the deep enthusiasm, the blended firmness, self-possession, and gentleness, the sweet spirit of co-operation with which they went about their duty. I saw in their faces that they felt they had chosen the better part, were living for a purpose, and not troubled overmuch about their position in American society. Then I thought what multitudes of young women in our land, to whom God has given wealth and opportunity, friends and fair hopes in life, are squandering the soul of their womanhood in a wretched career of self-indulgence and selfish pleasure, destroying their bodies, dissipating their minds, and imperilling their souls, in an ignoble slavery, which begins and ends in their own poor selves ; and I felt how weak a creature

is woman when she lives only to pet and push herself into some new opportunity for a useless round of trivial life. And I thank God that all over our land are these quiet, refined daughters of the republic, with noiseless feet and gentle hands shaping the souls that will shape the nation that will yet lead the world. They are the people's saints, the true woman's nobility, the prophets of that day when man and woman shall not quarrel for rights, but shall strive for supremacy in service to man and God.

REV. A. D. MAYO.

PROMOTIONS: OUGHT THEY TO BE ANNUAL OR SEMI-ANNUAL?

Read before N. E. Superintendents' Association, by A. D. Small.

THE fact, I suppose, is, that promotions have generally been, and still are, in a majority of instances, annual. The tendency on the other hand, if I mistake not, is towards semi-annual promotions.

The question proposed for the present discussion is, Which ought they to be, annual or semi-annual?

The word brought under the focus of our examination is *ought*: what is *owed*, or *due*? Regard, therefore, must be had to each school system separately, and the question must be answered as its circumstances justify or demand. I am not confident that we can lay down a universal law in the case, or, in abstract theory, establish the principle upon which such law could rest.

What are the circumstances of the case? Evidently, the needs of the pupils, and the school accommodations, and teaching force provided to meet those needs. Human nature is said to be very nearly the same the world over; but school appropriations have, like the stars, various magnitudes, from the showy and luminous, down to those that cannot be seen, except through powerful economical spy-glasses.

I beg your indulgence while, in order to justify the conclusions at which I shall arrive, I briefly discuss:

I. THE NEEDS OF THE PUPILS.

We will suppose that all pupils enter the lowest primary class, with the manifest destiny of passing along through the successive

primary and grammar grades to the High School. If, as is the case, any enter at other stages of the course, they then become subject to the general law of promotion.

The primary period embraces three or four years ; the grammar grades extend through five or six years ; and the High School course covers four years more, or fewer.

(a.) The primary period is eminently a time of preparation, the spring-time, the child-gardening time. The child becomes a pupil. He is now formally introduced to Nature, which before this had appeared to him a stranger, wrapped in mystery, and not to be accosted too familiarly ; he is to know Nature by name, to learn her appropriate rank, her history, habits, and vocation. Form, size, weight, color, number, qualities, and physical laws are topics of teaching and study. Language, so as to be understood from the lips of the thinker, or in written or printed forms, so as to be used in speech or writing, according to the requirements of correct thought, — Language is another study of this period. Before and along with all this, and as the basis of it all, is discipline, mental and moral : moral as affecting mental discipline, as well as for its own sake ; and mental discipline, as the means and most valuable product of school education. The pupil is to learn to fix the attention, and to use it in analysis, reflection, comparison, and the higher processes of thought ; to use it with energy and critical endeavor, and to take a degree of pride in work well done.

(b.) The pupil now passes to the Grammar School, there to become a pupil-student. His work now takes more definitely the form which is familiarly designated as study, — that is, he is to be more actively methodical, more self-directed and self-controlled, more persistent in self-application. The lines of study are now fewer and more suitably apportioned into tasks. The pupils seem to draw nearer to an average standard.

Those who had shot upward more rapidly are gradually overtaken by those of a slower growth. They who had been slow of apprehension, now find that patient toil will accomplish the task. And the brilliant and rapid learners are now obliged to retrace many previous steps, to repossess what they have lost. The work assigned is adapted to the capability of the average pupil, or is a trifle more exacting than that. It is a definite work, — a thing to

be done, whether quickly or tardily, — a task which may be completed at home, if not completed at school.

(c.) When the pupil-student enters the High School, he assumes more fully the character of a student. He needs less instruction as to the manner of studying, and is put more upon himself. The nature of his study changes perceptibly at this point. The two objects of study — information and culture — are to be recognized in every grade of teaching. Like the two parts into which the rectangle is cut by a diagonal, each increases in magnitude as the other decreases. In the primary stage, information is of the greater consequence, and the cultivation of the mental faculties has in view the aim of making them more acquisitive ; in the grammar grades, information is of great importance, but the cultivation of mind should be considered tantamount ; in the High School, though specific acquirements must be among the results of study, yet culture is to be held supreme.

Having thus noticed the characteristic features of the three periods of our public-school course, let us observe in what manner classes may pass through them.

(a.) The minimum age for admission to the Primary School is five years, but some children do not enter till eight years. This difference in age, and the differences in native mental capacities and capabilities, and in physical energy, will speedily advertise themselves in different degrees of proficiency. The necessity for re-classification will at first be frequent, but will grow rarer as we ascend the grades. In the lowest primary, it is demanded as often, perhaps, as once a quarter ; in the highest class, once every half-year. It will thus happen that a class will be prepared for promotion to the Grammar School at the end of every half-year. The class ready for promotion at the end of the school-year will probably be larger than the class six months behind it. Certainly, by judicious management, this will be made to be the case, and that, too, equally for the benefit of the schools and the pupils. Especially will this be the case if the first term of the year is somewhat longer than the second. At the end of the school-year, the regular time for promotions in the Grammar Schools, when a new lower class is to be formed, a larger number of the "indifferently" qualified pupils may with propriety be admitted. At a special promotion, all may be required to be well prepared,

or be retained in the Primary School till the end of the year. To keep back any who have finished this course of preparation, and are qualified for study in the Grammar Schools, would of course be unjust.

(*b.*) The cases requiring special promotion in the Grammar School will grow less numerous. The classes assume more complete solidarity. The dull, slow learner, and the brilliant and nervous one meet each other. The former needs to be quickened and lifted: the latter needs to be restrained from premature haste. Yet there will be a few who, on account of particular merit, should receive special promotion, and these will so readily amalgamate with the next higher class as to produce no disturbance in it.

(*c.*) The annual promotions from the Grammar Schools to the High School seem to me to meet all the requirements at that point. The courses of study are totally different in the two grades. The one is not a continuation of the other. The Grammar School studies should be well completed before the High School course is entered upon. If any pupil or pupils be not thoroughly prepared for admission at the regular yearly examination, and would be so well prepared at the end of the next half-year that to remain in the Grammar School the second half-year would be a serious loss, such pupil or pupils might quite as well be advanced at the regular promotion, though lacking six months' acquirements. The admission of a new element to the High School in the middle of the year would necessitate the formation of additional classes in Latin, French, Algebra, and Physics, the studies of the first year. This again would require an addition to the teaching force, and a consequent increase in the cost of maintaining the school.

2. SCHOOL ACCOMMODATIONS.

(*a.*) The frequent re-classification of pupils in the Primary Schools does not require additional rooms or teachers. The necessity for short recitations and for variety of work naturally occasions a classification of the room into divisions.

(*b.*) In the Grammar Schools, however, it is easier for the teacher to have but one class or division pursuing the same studies, doing the same written work, and taking the same exam-

inations. It is manifest, also, that her power and efficiency are greater, as she comes nearer the individual pupil. If admissions be made by the "natural selection of the fittest," there will be little or no disturbance; but if classes be promoted half-yearly, it becomes necessary to provide more rooms and teachers than there are classes, — perhaps twice as many.

In cities and towns, where ample accommodations exist to organize the Grammar Schools upon the plan of regular semi-annual promotions, undoubtedly that plan is considered all but perfect. The classes do not of course advance faster under this organization than they would if they changed rooms but half as frequently; and the query arises in my mind, whether such an organization is as favorable to special promotions on the basis of conspicuous merit, as is that plan which allows merit a full year to show itself.

(c.) Two regular admissions to the High School would necessitate two graduations yearly. The increased expense would not be the only objection to such an arrangement: the more frequent changes in the membership and organization of the school could but be unfavorable to culture, which demands seclusion and repose rather than agitation.

It is believed by some that there is a benefit in a frequent change of rooms, as lessening the possibility that the pupil's manner of thought may be artificially moulded after the fashion of a particular mind. On this ground, might not a daily change of teachers, according to the department plan, be still more beneficial? But is there cause for the popular cry, which we hear, about mechanical work and procrusteanism? The transition from the unmethodical to the systematic way of conducting schools; from hap-hazard teaching to a definite arrangement according to the law of mental growth; from heterogeneous, disorganized work to a precise assignment of little and well, and everything in its order, — this change, effected within the limits of a single generation, has doubtless caused many honestly to fear that mental individuality and personal freedom of thought are now, or soon to be, only memories of the past. But classification does not repress individuality, nor does the assignment of so much work as can be well done. Is this fancied evil to come from being subject to a single mind, from sitting under the

instruction of one teacher? When did a school ever have more than its one teacher? When did teachers ever seek more earnestly to impart variety to their teaching, or have readier access to the sources of such variety?

The elasticity of our school system, and of any school system, arises from the very individuality of the pupils, and from the employment of teachers who devote themselves intelligently to the developing of mind and the imparting of correct knowledge.

THE PROFESSION OF TEACHING.

From a Lecture read before the American Institute of Instruction in 1855.

BY B. F. TWEED.

DOES the business of teaching require as high an order of talent and character as that of the physician, the lawyer, and clergyman? Is the same amount of intellectual and moral culture necessary to success in teaching?

That we may answer these questions intelligently, let us first consider the true *end* of education.

It is not merely to impart a knowledge of certain processes in Arithmetic and rules of Grammar,—to “go through” Greenleaf’s Algebra, and to *parse* all the hard words in “Pope’s Essay.” Children are not to be regarded as so many little vessels, to be filled with “facts,” after the manner of Thomas Gradgrind and Mr. M’Choakumchild. No, the true end of education is to lead forth and direct our whole nature; in the words of another, “to call forth *power* of every kind,—power of thought, affection, will, and outward action; power to observe, to reason, to judge, to contrive; power to adopt good ends firmly, and to pursue them efficiently; power to govern ourselves and to influence others; power to gain and to spread happiness. The young should be taught the right *use* of their intellectual and moral powers; to trace the connection of events; to rise from particular facts to general principles, and to apply these in explaining new phenomena.”

This may seem a high order of requirement, especially with reference to young pupils; but the *teacher* who has not these ends in view in the discipline and instruction of even his *youngest*

pupils, but partially comprehends his mission. It need not, indeed it will not, be the constant *theme* of the teacher in his intercourse with the pupils, but it will be ever present to his *mind* as the great *end* to be attained, reducing all the exercises of the school-room, of whatever nature, to a mere system of *means* of effecting it.

This is the time to commence the formation of intellectual and moral *habits* in the young, which will grow with their growth and strengthen with their strength, and finally ripen into principles and character.

The maxim of Solomon, that a child trained in the way he should go will not depart from it, is as true intellectually as morally.

Even our elementary text-books, and the course of studies pursued by the youngest pupils in our schools, all recognize higher aim than that of solving a particular problem, or becoming possessed of a specific fact. The object of the training in oral arithmetic, which has become so universal, is not exclusively, nor chiefly, to teach children to perform precisely that class of operations, and to give a facility in the art of computation; but to form habits of continuous thought and reasoning, and lay the foundation for regular and systematic principles of investigation.

So, also, the exercise in grammatical analysis is of little value, if it do not assist in the formation of habits of careful observation, of nice discrimination, and definite and exact modes of thought and expression. The lesson in History is certainly not for the purpose of cramming the mind with a crude mass of indigested statistics, of battles fought and victories won, of the number of killed, wounded, and prisoners; but the object is to learn the characteristics of *humanity*, and by observing the opinions, habits, and peculiarities of nations in every variety of circumstance and stage of advancement, to distinguish what is universal from what is peculiar, and thus to trace the law of development and progress in the race. In fact, the ordinary routine of the school-room implies a breadth and fulness in the objects of education which, I fear, is but partially recognized in the discharge of our daily duties.

Then we have the discipline of the school-room. What are its objects? Is its aim *merely* to preserve stillness, or is it not *rather* to form and strengthen habits of self-government, of

obedience to rightful authority and *law*? I know we are apt to take a narrow view of school discipline, — to regard it simply as a means of securing quiet, and thus facilitating the active operations of the school-room; and we too readily accord to a teacher the merit of being a good disciplinarian, without inquiry into the means adopted and motives urged.

To the casual and inexperienced observer, two schools may exhibit the same external appearance, the same stillness, the same regularity in all their movements; while, in one case, all this is secured at the sacrifice of every noble, honorable, and generous feeling; and in the other, by means which tend to develop, exercise, and strengthen the whole moral nature.

In other words, it may be an abject and degrading submission to the arbitrary will of the petty tyrant who sways his birchen sceptre over them, or it may be the result of constant and persevering effort at self-restraint on the part of the pupils, inspired by the instructions and character of the teacher. Such, then, being the true *ends* of school discipline and instruction, may not the same judgment, discretion, practical wisdom, the same high-toned character, the same moral and intellectual culture, be made available here, as in the discharge of the duties of the professions referred to? And is it not this narrowness of view which gives rise to the complaint that we often hear, that “so little attention is given to moral instruction that we are educating the *head* at the expense of the *heart*,” — as if no influence could be exerted, except by the aid of a text-book, and through the usual forms of school recitations.

To me it seems clear that a man who is competent to teach the principles of moral science from a text-book may and must find innumerable instances in the discipline of his school, of their *application*, which, by means of their exemplification, can be made far more impressive and lasting than when considered merely in the light of abstract principles.

To the true teacher, the payment of a penny as tribute money, the ambition of a fond mother, the fall of a sparrow, furnish texts involving the highest truths. And when we reflect that moral influence is the result of *character expressed in action*, rather than mere *verbal* utterance; that its sound goes out into all the earth, even though no *voice* is heard; and that it is communicated

by the very *touch* of purity and goodness, does it not invest a calling, which, perhaps more than any other, makes this claim on us, with a peculiar sanctity?

Now, does the practice of the *law*, the administration of justice in the *community*, the adjustment of questions of legal right, involve nicer or more subtle distinctions than those on which the teacher is called to act in the discharge of the duties of his office? Is it easier, without the aid of judge or jury, constitutional provisions or penal enactments, to render essential justice between boy and boy, — to satisfy them, their parents, the school committee, and one's own conscience, — than to decide upon a title of ownership, or the validity of a document, with the aid of all the means and appliances of the legal profession?

Not by any means to disparage the noble profession of the *law*, founded as it is on the idea of *right*, and having its sanctions in natural *justice*, it seems not too much to say, that the vocation of the teacher involves interests as important, rights as dear, and claims at least equal in intelligence and character.

And how do the requirements of the teacher compare with those of the physician? Is the body more delicate and complicated in its structure than the mind? And does the organic play of forces, which constitutes mere animal life, depend on conditions more difficult of comprehension than that of the *ethereal* and subtle essence on which depends intellectual and moral vitality? Does it call for a greater exercise of skill to treat successfully a *fractured limb* than a *fractious spirit*? Or a steadier nerve and more practised hand to apply the scalpel to remove the *proud flesh* from a nauseous sore, than to probe a *wounded, festering, and inflamed temper*, to remove the *proud will*, to cleanse it from its impurities, and assist nature in her healing operations?

Is the oil of birch (so essential in the treatment of all diseases peculiar to the school-room) less liable to abuse in the hands of passionate, ignorant, and unscrupulous men, than boluses, cataplasms, cathartics, calomel, and infinitesimal pellets in the hands of a quack?

It surely cannot be less difficult to understand and adjust a partially or ill-developed intellectual or moral nature than to minister to a diseased body. Whatever claims, then, may be

urged by the physician in behalf of his profession, may be urged with as much more force for that of teaching as the mind excels the body ; or, as it is more difficult to guide and restrain the subtle forces of thought, passion, and will, than to treat successfully the diseases and infirmities of the body. And what shall we say of its requirements as compared with those of the clergyman ? Is the influence for good or evil, which the teacher exerts upon the impressible and credulous mind of childhood, less important in its effects than that of the clergyman on the members of his congregation, limited as his influence necessarily is by habits and opinions already formed, by the engrossing cares of life, and by that lack of impressibility which accompanies maturer years ? But on this point we need not argue, since the clerical profession itself has fully conceded it,—nay, asserted it in the strongest terms.

“There is no office,” says Channing, “higher than that of a teacher of youth, for there is nothing on earth so precious as the mind, soul, character of the child.” “Much,” he says, “as we respect the ministry of the Gospel, we believe it must yield in importance to the training of the young. In truth, the ministry now loses much of its power for want of that early intellectual and moral discipline, by which alone a community can be prepared to distinguish truth from falsehood ; to *comprehend* the instructions of the pulpit ; to receive higher and broader views of duty ; and to apply general principles to the diversified details of life.”

I do not quote these remarks, nor urge these claims, to flatter the vanity of teachers. As a teacher, I cannot claim to have answered any such demands of the profession ; and I fear that most, if not all of us, when tried by our own ideal of a teacher, fall immeasurably short of the “mark of our high calling.” I tell rather what the teacher *should* be and do, than what he *is* and *does*. In truth, such a view of the capabilities of the profession, taken in connection with our shortcomings, is most humiliating. The very fact that a calling involving such duties and capable of such things should be obliged to urge its claims to *respectability* in a community whose institutions are based on popular intelligence and virtue, should forever stop anything like boasting on our part ; since, by such a view, we lose more *personally* than we can by any possibility gain *professionally*.

VERMONT DEPARTMENT.

H. T. FULLER AND J. C. W. COXE, EDITORS.

GENERAL INTELLIGENCE.

It is announced — we hope by authority — that Rev. Henry Smith, D. D., formerly President of Marietta College, Ohio, and more recently Professor in Lane Theological Seminary, Cincinnati, has accepted the presidency of Middlebury College. Dr. Smith is an alumni of Middlebury, class of 1827.

THE vacancy in the Board of Education, caused by the removal of Prof. G. N. Webber to Troy, N. Y., has been filled by the election of J. S. Cilley, of Brandon. Mr. Cilley is a veteran teacher of large experience, and his counsels cannot fail to prove valuable to the educational work of the State.

BARRE. — F. B. Hawes resigns the charge of Goddard Seminary with the current year. His administration has proved *him* a popular and capable man, and our good wishes go with him.

MONTPELIER. — Mr. C. W. Hoitt, of Nashua, N. H., has been elected Principal of the Montpelier Union School, *vice* E. W. Westgate. We have not learned of his acceptance. The other teachers elected are Misses Sweet, Maxham, Abbott, Emery, Hunt, Kimball, Flint, and Sumner. Of these, all were teachers the last term except Misses Kimball and Flint, and they have previously taught in the school, and Miss Mary L. Sumner, of this village, who is a new teacher.

AT a meeting of the Trustees of the Vermont Academy held at Rutland, June 24, Hon. William M. Pingrey was elected President of the Corporation; Hon. Alanson Allen, Vice-President; Rev. M. A. Wilcox, Secretary; and Mial Davis, treasurer. Lawrence Barnes, Rev. Charles Hibbard, and Julius J. Estey were appointed Executive Committee.

The agent, Rev. Mr. Wilber, reported the purchase of thirty-five and one fifth acres of land for the use of the institution, at Saxton's River, and passed the title deeds over to the Treasurer. This Institution has already a fine endowment fund, and the agent is vigorously prosecuting the canvass for the building fund.

THE anniversary exercises of the Castleton Seminary and State Normal School commenced on Sunday, June 21, with a sermon by Rev. W. L. Woodruff, on "Personal Influence." The examination of classes occurred on Monday and Tuesday, and appear to have been very satisfactory to the friends of the school, as they were creditable alike to the pupils and instruc-

tors. The examination of the Normal classes was conducted by Dr. French, the Secretary, and Mr. Cilley, of the Board of Education.

The following named passed the examination, and were graduated in the First Course: Elsie Baldwin, Chester; Gracie Cubett, Orwell; Stella Eaton, Townsend; Frankie Evarts, Clarendon; Lizzie Gibson, Clarendon; O. F. Harrison, Fairhaven; Hattie Judkins, Castleton; Ida Lewis, Poultney; Mary Miller, Dummerston; Maggie Ryan, Fairhaven; Sarah Squires, Clarendon; Ida Squires, Ira; Nellie Stiles, Hydeville; Jennie Smith, Rutland; Ella Tufts, Jennie Thompson, Fairhaven; Ella Thompson, Fairhaven; Belle Thatcher, Brandon; Emily Williams, Poultney. Six were graduated in the Second Course, viz. Emma Allard, Fairhaven; Jennie Croft, Wallingford; Abbie Mills, Pittsford; Queen McConnell, Brandon; Ella Marsh, Chester; Addie Taft, Winhall.

POULTNEY. — The Troy Conference Academy, which was for many years in a flourishing condition and enjoyed a large patronage, but which some years since passed into private hands and lost its high repute, has been repurchased and is to be opened again as a Conference Seminary. The trustees recently elected Rev. Martin E. Cady, A. M., Principal, and Miss Anna M. Wythe, Lady Principal, and referred the selection of the remaining members of the Faculty to a special committee. The school buildings are being thoroughly repaired, and active preparations made for a vigorous and successful school. The Fall Term will open Aug. 27.

WATERBURY. — G. C. Mayo has been elected Mr. Phelps' successor in the graded school. Mr. Mayo is, we believe, a graduate of the university at Burlington. Miss Mary J. Cressey is the only assistant teacher yet elected.

MONTPELIER. — The Trustees of the Seminary wisely changed the school calendar at their recent meeting, and determined on three terms per year in place of four, — the school year to cover forty weeks.

Rev. S. L. Eastman has been elected Prof. Bush's successor in the Chair of Languages.

Prof. J. C. W. Cox, after two years' service, retires from the Principalship of the seminary. No announcement of an election to the position has yet been made.

MIDDLEBURY. — The trustees of Middlebury College have received the welcome news that the late Jos. Battell, of the class of 1823, whose name appears on the necrological list of the alumni for the past year, donated in his will the munificent sum of \$10,000 to his loved Alma Mater.

Mr. Battell was present at the Commencement last year with his classmates, Hon. Merritt Clark of Poultney, and Hon. Harvey Button of Wallingford, to celebrate the semi-centennial of their graduation.

The commencement exercises of Middlebury College occurred July 12-15. The Baccalaureate sermon was preached by Prof. G. N. Webber, D. D., of Troy, N. Y. The alumni festival on Tuesday was an interesting occasion, though the attendance was small. E. J. Phelps, Esq., of Burlington, was, by

unanimous vote, requested to address the alumni next year, in eulogy of Justice Nelson. The Association elected the following officers: President, Rev. Geo. N. Boardman, D. D.; Vice-Presidents, Rev. E. P. Hooker, S. Knowlton, E. J. Warner, N. White; Secretary, E. E. Smith of Middlebury; Treasurer, Prof. W. H. Parker; Central Committee, N. F. Rider, J. M. Slade, Jr., G. H. Remelee; Committee on Necrology, S. Knowlton, W. H. Parker, M. L. Severance; Orator for 1875, Rev. W. R. Shipman of Tufts College, Boston; Substitute, A. E. Rankin, Esq., of St. Johnsbury; Poet for 1875, Philip Battell of Middlebury; Substitute, M. D. LaCollester.

The Parkerian Prize Speaking occurred in the evening, in which J. McDonald Mulcahey, Andrew T. Stapleton, Harry P. Stimpson, and Willis L. Twitchell, of the Freshman Class, and W. S. Austin, Walter L. Brown, Edwin H. Eastman, and Newcomb H. Munsill, of the Sophomore Class, took part. The first Freshman prize was awarded to Harry P. Stimpson; the second to W. I. Twitchell; the first Sophomore prize to W. L. Brown, and the second to N. H. Munsill.

The Rhetorical Exercises of the graduating class occurred on Wednesday, according to the following programme:—

MORNING.

Prayer. Music.

1. Oratio Salutatoria, H. P. Sheldon, Brooklyn, N. Y.
2. Oration—Skepticism, The True and the False, L. H. Batchelder, Montpelier.
3. Oration—Architecture the Historian of Civilization, H. S. Boardman, Middlebury.
4. Oration—The Isolation of Genius, A. G. Conant, Middle Granville, N. Y.

Music.

5. Oration—The Life and Services of Alfred the Great, T. W. Darling, Keene, N. H.
6. Oration—Shall Trial by Jury be Abolished? O. S. Eaton, Galveston, Texas.
7. Oration—Science as a Factor of Modern Progress, E. D. Ellis, Fairhaven.

Music.

AFTERNOON.

Music.

8. Oration—The Tyrannizing Idea in America, C. C. Gove, Marshfield.
9. Oration—The Education of Popular Sentiment, and an Application, B. P. Sparrow, Calais.
10. Historical Oration—The Hebrew and Grecian Elements in Modern Civilization, A. L. Miner, Jr., Manchester.

Music.

11. Philosophical Oration—The Relation of the Fine Arts to the Mechanical, G. M. Wright, Orwell.

12. Oration—The Men for the Times, A. O. Spoor, Troy, N. Y.

13. Oration—The Common People in History; with Valedictory, G. G. Ryan, Fort Covington, N. Y.

Music. Degrees Conferred.

Prayer. Benediction.

The degree of Bachelor of Arts was conferred upon the class, numbering thirteen.

The degree of Master of Arts was conferred, in course, upon G. L. Jones, class of '68, C. W. Hill and F. M. Peck, class of '71, S. H. Foster, G. E. Clark, H. C. Robbins, Zebulon Jones, F. H. Graham, G. W. Thompson, E. J. Davenport, J. W. Wilkie, and Lewis Meacham.

Honorary degree of A. M. upon A. G. Cochran and Rev. S. B. Pettengill.
Doctor of Divinity, upon Albert R. Teele.

Doctor of Laws, upon Hon. J. C. Churchill, Oswego, N. Y.

PROFESSOR CROSBY.

WE had not thought that *he* would die :
Others had fallen, — the great, the good ;

But as we looked
Adown the time to come, the thought
Ne'er came to us that we sometime
Should miss his smile,
His kindly word, his ready help.

The marble, chiselled by the hand
Of loving artist, knows not when
That hand is still, —
Else we should think e'en stone would weep.
He shaped our minds to high ideals ;
His work was wrought
On us. We are *not* stone to-day.

Teacher of teachers, oh ! that all
Whom thou hast taught might be like thee, —
Wise and yet meek,
With reverent love for God and truth,
With love for country, love for man,
And charity
Which hoped all good unto the end.

The end has come ; but he will live
Both there and here,
Till truth and right shall rule the world.

M. C. C.

Freetown, Mass.

RESIDENT EDITOR'S DEPARTMENT.

HAVE THE CHILDREN IN OUR SCHOOLS THE ABILITY AND THE TIME TO LEARN ARITHMETIC?

"A 'COUNTER' PLEA FOR THE INNOCENTS."

GIVE me space, Mr. Editor, to reply to the paper on the study of Arithmetic, by Superintendent Hubbard, which appeared in the "Teacher" for June. I shall do so with a directness and earnestness, justified, as I think, by the importance of the subject.

It properly belongs to me to make this reply; for I am the one whose remarks at a meeting of the Superintendents' Association, some two years ago, induced Mr. Hubbard to prepare the paper in question.

And I am the more inclined to undertake this rejoinder, because, in his reference to my position, Mr. Hubbard, unintentionally of course, has done it great injustice. He has both misstated it, and understated it; and I am even more concerned to put myself right than to prove him wrong.

My best course, postponing any further reference to his strictures, is to present a brief statement of the views I advanced when I communicated with the superintendent. More carefully elaborated, they have since been published, and have secured a wide circulation, and very marked approbation; and my lead in the premises has had a quite extensive following. It is all the more important that it should not be misrepresented.

I began my remarks by saying that there is an imperious necessity of economizing time in connection with every study in our schools, in every particular in which it can be done without injury to such study, in order to obtain the requisite opportunity for all the studies, in view of the distracting pressure on the schools. When the number of school hours is not enough to allow of attention to the whole prescribed list of studies without such frequent transitions from one to another as to peril some of the most important purposes of education, it is the part of wisdom, unless some of the studies themselves can be eliminated from the course, to discontinue the furtherance of all such aims and the employment of all such methods as are of questionable value. This general principle I applied specifically to the prevalent methods of instruction in Arithmetic.

It has been, for many years, one of the cardinal points in the prosecution of this study in most schools, that the scholars should be thoroughly versed in the philosophy of the subject, step by step, as they advance. In my anxiously critical revision of the work of the Grammar Schools under my charge, that I might discover, if possible, points wherein the instruction in some studies might be abbreviated or recast without injury, for the benefit of others,

my attention was arrested by the character of the recitations in Arithmetic. I found that full half the time devoted to the study — if not more — was spent in explanations of the abstract theory of numbers, and of the processes by which the slate work was to be performed, and in labored efforts to make the scholars thoroughly understand them. In answer to my inquiries how far these elaborate and reiterated explanations were found to be of value, that is, what proportion of the scholars remembered them, so as to give evidence that they had become positive additions to their stores of intelligence, I received from the united corps of teachers the emphatic response, that such instruction is, in the main, a waste of time. The philosophy of the processes of arithmetical work, they told me, is almost invariably beyond the capacities of the scholars *at the time when these processes are necessary for their practice and advancement*. For no matter how carefully it may be explained, it is speedily forgotten by the great majority.

When, subsequently, I made careful tests of the truth of these statements, I was surprised to find in what an intellectual muddle many of our scholars showed themselves to be on the points in question, even those in the High School; and I discovered this fact, also, — and its significance was not lost upon me, — that the most were not able to perform ordinary slate work with the prompt power of calculation and the accuracy which ought to have characterized their attempts. Then I reflected that since this slate work, this practical evidence that the scholars are capable of readily grasping the conditions of a problem, and of applying the needful processes rapidly and correctly to its solution, is, after all, the chief source of the good to be derived from the study of arithmetic, whether as regards mental discipline, ability to put the faculties down to methodical and thorough work, or the practical uses of the study in after life, it would be far better that the effort wasted on the explanation of processes should cease, and the time thus gained be divided between an increased amount of intelligent, faithful slate work, and the neglected studies now clamoring for attention.

But was I not making my generalizations from insufficient data? Were not the schools under my charge exceptionally deficient, showing that the trouble was in the teachers' methods, and not in the scholars' brains? I resolved to be fully satisfied on that point.

So I visited High Schools and Grammar Schools in other localities, including some of most repute, and the reply to my inquiries was uniformly and emphatically corroborative of the impressions I had already received. Everywhere the explanatory labor of the Grammar Schools over the theory of numbers and the philosophy of processes, was declared to be abortive as to the communication of intelligent and permanent conceptions, while it defrauded the slate work of the necessary time to render it prompt, accurate, and trustworthy.

In addition I learned that in Prussia the teachers of the elementary schools are forbidden by the government to give any instruction in the theory of numbers and the philosophy of the processes of work, — it being declared that slate work, that is, the practical application of processes to problems, is the method

of most advantage to the scholars in every sense, and the only method for which time can be spared.

Such is an outline of my communication to the superintendents; and I stated in conclusion, that I should solicit from my School Committee the passage of a resolution to this effect:—

“*Resolved*, That the superintendent be authorized to instruct the teachers in the Grammar Schools having classes below the highest grade in these schools, that they need not require of their scholars explanations of the abstract theory of numbers, or of the processes by which the various operations in Arithmetic are performed. They will be expected to explain each of these, clearly and thoroughly, where it is arrived at in the order of progress, but need not dwell on such explanations as an imperative object of study.

“The *use* of the processes, however, is to be thoroughly taught and fully exemplified in slate work; and all the principles of Arithmetic prescribed to be learned, must be practised upon through concrete examples, in every form of application in which the teachers can present them.”

The authority here asked for was granted, and the Grammar Schools of New Bedford have been pursuing their Arithmetic, during the past year, according to the principles thus set forth, to great advantage, as we maintain. And is there anything really weak, defective, or in any way detrimental in this position? Is it defrauding rather than benefiting the minds of those who are subjected to it? The essay to which this is a reply says as much; it intimates, with a sneer, that I have made “an advance backward.” But if my data are correct and my deductions logical, there is no weakness, no retrogression about my position. And where is any mistake in my data or fault in my deduction?

It is to be borne in mind that the substantive point of the position is, that the majority of our scholars cannot fully understand the philosophy of arithmetical processes, at the time when these processes are necessary for their practice and advancement. Well, am I at fault here? *Can* they? A few examples to aid the reader towards a decision:—

A class of children of from eight to nine years of age comes, in due order of progress, upon Multiplication. They are told that the first figure of each partial product, where the multiplier has two or more figures, is to be placed under the multiplying figure, and the columns of figures thus constructed added up for the whole product. The philosophy of the matter is very simple, it would appear. But let the teacher explain, however lucidly, how many of the class can repeat the explanation a month afterward, showing clear intelligence of the subject?

Again, *we* connect decimals with whole numbers when we teach the fundamental operations; for the work is the same with both, and time is saved by the combination. So that same class of children, from eight to nine years of age, having examples in Multiplication that include decimals, is told to point off as many places for decimals in the product as there are decimal places in both factors: all is clearly explained. How many can intelligently repeat the explanation a month afterward?

Again, Division is reached. The class is a few months older. 357 is to be

divided by 4. "4 into 3, you can't," so the customary process runs, "therefore, you take another figure in addition, and say, 4 into 35. But the true philosophy says, "4 into 3 *you can*," because a figure is significant according to the place it holds. The 3 is therefore actually 3 *hundreds*, and four will go into it a great many times. The 3 hundreds are reduced to *tens* and added to the five tens for the sake of convenience only: all is explained. How many of the class can repeat the explanation a month afterward?

Again, decimals are included in the examples in Division, and "as many places are to be pointed off in the quotient," etc. How many will intelligently repeat the explanation of this a month afterward?

Again, being somewhat older still, say about eleven years of age, the class is to divide common fractions. "Invert the divisor and proceed as in Multiplication," says the most expeditious rule, and expedition is what we seek in mere processes: it is thoroughly explained to them. How many of them can intelligently repeat the explanation a month afterward?

Once more, a common factor is to be changed to a decimal. "Annex ciphers to the numerator, etc.," says the rule. How many will bear the philosophy of that performance intelligently in mind for any length of time?

So is it with the most of the processes of arithmetical work with ordinary Grammar School classes, at the age when the work comes along in the order of progress. Surely I am not mistaken. If my own observation were at fault, the testimony of numberless teachers would prove me right. And would not time spent in *profitless explanations* better be saved?

Mr. Hubbard says *No*. Crowd in more of such philosophy rather than less. The muddle that the scholars' brains are found in arises not from their lack of apprehension, oh, no! Children can understand everything on the subject, at any age, to judge from his reasoning; but the fault lies with authors and teachers.

And then we have an array of examples to inform us in what particulars authors and teachers have so erred as to muddle all the scholars' brains. And what do they all amount to? One is amazed at the ludicrous incongruity they present. My position has reference to the substantive work of the school-room in Arithmetic, among its progressive topics, through all the diversified and exacting processes of slate-practice; and my opponent triumphantly offsets my facts and reasoning with a little of the "milk for babes" on the subject, such as is contained in the first few pages of Colburn's "First Lessons." What if authors and teachers have been guilty of the kind of teaching so contemptuously exemplified? It all has about as much to do with the question at issue as a fog on the surface of the stream emptying into Lake Superior has with the volume of the cataract of Niagara.

But I dispute the correctness of Mr. Hubbard's assertions as to the shortcomings of authors and teachers. Let us examine his examples, *seriatim*, and test them.

He leads off with a statement flavored with expressions of high contempt, that "we abuse the children when we ask them to explain first

truths," etc. He gives an example. Now, *we* don't have any fiddle-faddle of the kind. What sort of teachers has the superintendent happened among? They are not representative specimens by any means.

A little further on in his essay, he presents five or six examples to prove that "we teach the child nonsense and then wonder that he does not distinguish sense from nonsense." Here is one of the examples: "'How many hours would it take you to travel ten miles if you travel three miles in an hour? It would take as many hours as three miles is contained in ten miles'; and I ask," he says scornfully, "how many hours is three miles in ten miles?"

Now, what does the impropriety thus stigmatized amount to? It is merely a verbal omission in abbreviating the statement of the answer, and does not imply a particle of mental confusion. The word *times* necessary to complete sense is omitted, that is all; and when supplied, thus, — as three miles is contained *times* in ten miles," all becomes right.

I have given out this and its companion examples to many classes; and while some of them made the omission so sharply criticised, there was in all instances a clear apprehension of the Arithmetic in the case; for the omitted word was promptly suggested the moment that the defect in the answer was pointed out, and to cite instances of defective phraseology as so many instances of mental obfuscation is to mix diverse matters up together considerably, to say the least.

Now a few words about the *hat* example, given to illustrate that "we teach the pupil to put two things together as premise and conclusion when the latter does not grow out of the former." "'If one hat costs five dollars, how much will three hats cost?' We teach the pupil to say, 'If one hat costs five dollars three hats will cost three times as much.' Now, the fact that three hats will cost three times as much as one does not depend at all upon one hat costing five dollars. We might as well say, If it is pleasant to-morrow, day after to-morrow will be Sunday."

Here again is an elephant manufactured out of a may-bug, — a slight infelicity of statement magnified into a gross arithmetical blunder; and when I remark that this form of solution is the one exactly followed by Colburn (see First Lesson, p. 37, Sec. II), I think I may safely leave it to take care of itself. I don't believe it will addle many brains.

It was my purpose to pay my respects to all the examples of the essay in succession, but at this point I forbear; for those that have already been analyzed indicate the singular irrelevancy of the whole. What remain involve defects too insignificant to merit attention or else attribute to teachers in general, mistakes of which no worthy teachers are ever guilty. The superintendent seems to have experimented with two or three score of teachers whose education has been unhappily neglected, and with an irresistible propensity for generalizing, hastened to instance their blunders as evidences of universal stupidity.

And even were errors of the kind brought home to the great body of our teachers, I ask again, as I have asked already, what considerable bearing can

a range of such simple elementary mental problems have upon a discussion of the methods of slate-work practised in the schools?

The essay closes with some important suggestions, which I hope to discuss at a future time.

H. F. H.

New Bedford, July 1.



SCRAPS.

AT the recent examination of the Salem Normal School, the question was asked of one of the young lady graduates, by Mr. Hagar, "In case a scholar refused to inform you of the wrong-doing of a companion, should you punish him as well as the wrong-doer?" The lady promptly answered "Yes."

The mayor of Salem, Gen. Cogswell, was afterwards called on for a speech; and in the course of it, he expressed his strong dissent from the position that it is to be regarded as a misdemeanor, meriting severe punishment, when one scholar will not inform against another. He narrated the circumstances under which, when he was a captain in the army, a soldier volunteered information against a brother soldier; and stated that he summarily ordered the informer to stand in the place of the offender and receive the punishment in his stead; "and," added the General, "I do not think I did anything throughout my military career more conducive to good discipline and honorable feeling among my men."

The General's remarks evidently struck a sympathetic chord in the hearts of the audience, for he was repeatedly applauded; and certainly, there is a magnanimity in the act of one who braves personal peril rather than betray a companion which elicits admiration, while a readiness to divulge the secret which will bring another into disgrace is met with involuntary contempt. A teacher is never placed in a more trying situation than when the preservation of discipline, as also, it may be, good moral influence, seems to demand that a scholar who knows the names of the offenders in any breach of the school proprieties should be compelled to make them known and refuses so to do. It taxes the wisest brains to act discreetly under such circumstances.

THE field of education has been pretty well occupied, so far as text-books with any originality about them, are concerned; but we have a suggestion to make in that direction, which is at anybody's service. Many school committees nowadays, discarding the arbitrary method, heretofore prevalent, of advancing scholars from grade to grade, and acting "for the greatest good of the greatest number," are accustomed to put their scholars forward in mass, the grades passing upward and onward as a matter of course, without the intervention of the principle of close, sifting selection. Only those who would plainly be personally disadvantaged by being put forward are kept down.

But it follows that the average age of classes of scholars, thus uniformly

advanced, when they reach the threshold of the High School, is too immature for the quality of true High School work; while the minds of all of them would be greatly benefited by another year of Grammar School studies having a broad, comprehensive range of instruction. The first year in the High School, therefore, should be regarded as a kind of preparatory year, with studies adapted to such an arrangement. It would greatly facilitate the whole after course.

But it would be well to give a taste, even then, of true High School study. Thus, for instance, while a thorough review of Arithmetic should be insisted on, there would be advantages from making an opening into Algebra; and how could that be better accomplished than by linking the abstractions of Algebra in with the arithmetical work, — the arithmetic of each topic to be followed by the corresponding algebraic expressions and solutions? A text-book of Arithmetic and Algebra thus compounded is earnestly inquired for. We do not know of the existence of such a book. Who speaks first to make one?

NOTHING seems to be more pleasing than the compositions of budding youth which now and then get into the newspapers, where real originality of thought or expression is racily mixed up with the mistakes and crudities of immaturity. How rich the one now going the rounds, the brilliant effort of an eight-year-old child! "Subject, a Horse. — A horse is an animal with one tail and four legs; one on each corner."

We give below a late intellectual emanation from a boy in one of our sea-port towns, between ten and eleven years of age. There is certainly a vein of true humor running through its piscatorial statistics. The teacher had told the class to write in their seats at the time, for half an hour, on any subject they pleased. The writer has evidently been well-grounded in spelling, punctuation, and capitalization.

"MY DEAR UNCLE: — I spent my vacation gunning most of the time with a pop-gun. I walked over to Africa to shoot some lions and tigers, I shot 15 lions, 23 tigers, 13 whales, 16 elephants, 11 baboons and 100 monkeys. I then went a fishing and caught with a horse hair line, a pin for the hook and a stopple for a sinker, 25 halibut, 93 sharks, 173 sword fish, in five seconds of time. As I was going to draw up my line again, I had 9 whales, 16 halibut, 17 sharks, 11 sword fish, 18 blue fish, 5 tautog, 19 scup, 13 lobsters, 12 crabs and 7 bass. The line was not quite strong enough and it broke. I sent my slave, Dennis Sullivan [the boy sitting in the seat in front of him], down after them. He jumped down and caught one of the whales by the tail, he thought they were quite heavy, but as he was a man of muscle he got them up and put them in our large boat, eight inches long and one and a half inches wide, and swam over to America with them in our pockets. As soon as I came home a fellow whose name is Bill Butler [the boy sitting in the seat behind him] came along blowing an old fish-horn. I went out of the house and said, Old Bill, where are you going to-day? He says, Well, old Jack, have you got any old hats, jackets, boots, vests, pants or shoes you

want to sell? I said, what do you give a pint for them? He said that he give five cents counterfeit for a pint of them. Just then a State Constable jumped around the corner and snatched him. He had a lot of old bottles which had whiskey in them. He had just been asking me if I wanted any, I told him that I did not use it. He said that it was his best friend. The State Constable carried him up to the police-station where he was fined two cents and a half as being a common drunkard; he could not pay it and was sentenced to two minutes in the House of Correction. As soon as he got out he said, Will you go up to Fifth Street Grammar School [the writer's school-house] and see it? The doors are made of the purest of gold, and the knobs of silver. This is the end of my vacation, and how is that for high?"

TEACHERS' ASSOCIATIONS.

THE County Associations for the counties of Franklin and Hampshire and of Berkshire were held in the months of May and June.

The topics of interest at the Franklin and Hampshire meeting were Methods of conducting classes in Music, History, Drawing, Language and Grammar, and Arithmetic, all of which were illustrated with classes of children; Education and Labor; Socrates as a Teacher; The Mind's the Measure of the Man; Primary Education: Should it be instruction in all the departments of knowledge, or in the details of a few? The Value of Latin to the Student of English; The Mutual Duties of Parents and Teachers in Relation to the Schools; and the Place of Physiology in the School Curriculum.

The topics of interest at the Berkshire meeting were Elements of Success in Teaching; Poetry as an Artistic Development of Language; a Uniform Course of Study; Classification and Course of Study in Ungraded Schools; The Relation of Parents to our Common Schools; The Art of Questioning; Our High Schools.

All these meetings were largely attended; the discussions were characterized by great earnestness, and conducted with exceeding courtesy; there was manifest a feeling that the conduct of the schools requires, at the present time especially, great wisdom, and that the teacher should be above all selfish considerations, and seek only to discover and apply the truth. The appeal for the teaching of the Natural Sciences, by Prof. Scott of Westfield, was especially forcible, also for the special training of teachers, by Rev. A. D. Mayo. The method of teaching History, illustrated by Miss Bates of Greenfield, is worthy of special mention; also the lecture of Dr. Marshall Henshaw, on the value of the study of Latin.

If fewer errors than usual are found in our pages this month, it will be due to the *absence* of the editor, and the fact that we have a good proof-reader.

ED.

BARNUM'S HIPPODROME.

THE great showman is to be in Boston for three weeks from August 3, and it is said by those competent to judge, who have seen it, that the hippodrome surpasses anything of the kind heretofore presented to the public.

Indeed, we have had nothing of the *kind* exactly. Other exhibitions that we have witnessed have differed in extent, chiefly; but in this, there is said to be an originality which justifies the epithet of "great showman" as indicative of Barnum's genius. Beside the mere brilliancy of the exhibition, its instructive character commends it to all educators.

The ancient and modern carriages, costumes, etc., of different nations, are "object lessons" of great value, and the zoological exhibition will afford the young opportunity for observing at first hand what they have studied on the picture-card, or in illustrated text-books on Natural History. We believe that children who have used Prang's cards with Calkins' explanations will be able to *observe* with much greater accuracy the essential peculiarities of animals than those who have had no such previous training. Try it, teachers, in the Fall, and see whether the children who, during the holidays, have witnessed this exhibition, have not gained more definite notions, and really *seen* much more than those who have had no such previous training.

We hope that the children of our public schools who are unable to leave the city during vacation will have an opportunity, through the liberality of somebody, of witnessing this entertaining and instructive exhibition.

THE AGASSIZ FUND.

MANY of the schools in the State having closed for the vacation before the 28th ult., we are frequently asked whether contributions will be received after the opening in September.

We are authorized by Mr. Barnard, the Treasurer of the Fund, to say that contributions *will* be received at any time. We hope that teachers will make this known to their pupils, and that they will be encouraged to contribute their "mites," as much for their own sakes as to increase the amount of the Fund. There is no surer way of becoming interested in a good cause than by giving something for its advancement. Where "our treasure" is, "our hearts" are very sure to follow.

IMPORTANT EDUCATIONAL ENTERPRISE.—We learn from the "Traveller" that it has been decided to establish at Newburyport a University of Modern Languages, for the purpose of affording pupils facilities for obtaining instruction in the principal modern languages of America, Europe, and Asia. The buildings are to be completed immediately, and it is expected they will be ready in September. At a meeting of trustees on the 25th of May, James W. Preston of this city was chosen Secretary of the institution. Hon. Oliver Warner of Massachusetts, Rev. Asa Dalton, rector of St. Stephen's

church, Portland, and C. Cummings, Esq., of Medford, Mass., were elected Vice-Presidents of the University. Hon. James W. Patterson, of Hanover, N. H., and Edward H. Ashcroft, Esq., of Lynn, Mass., were added to the Board of Trustees. It is expected that a large number of foreign pupils, who are now pursuing their studies in various parts of the country, will enter the school. The following are the Trustees of the institution: —

Rev. J. M. W. Farnham, Shanghai, China; H. W. Moulton, Mass.; Hon. Chau Laisun, Chinese Commissioner of Education; Hon. Oliver Warner, Mass.; Rev. Asa Dalton, Portland, Maine; George Whittemore, Esq., New York city; Charles E. Jackson, Esq., Boston; N. A. Moulton, Esq., Newburyport, Mass.; Colonel Ben. Perley Poore, Washington, D. C.; Charles H. Moulton, Esq., Washington, D. C.; J. C. Rodriguez, LL. D., New York city; Rev. Nahum Gale, D. D., Lee, Mass.; Mr. Giro Yano, Japanese Charge d' Affaires; T. Tomita, Japanese Consul, New York; Señor Don Ignacio, Mariscal, Envoy Extraordinary and Minister Plenipotentiary from Mexico; Prentice Sargent, Esq., Mass.; E. M. Boynton, Esq., New York city; Hon. J. W. Clark, Framingham, Mass.

DARTMOUTH COLLEGE. Prof. Young has returned from Washington, where he has made preparations for the trip to China to observe the transit of Venus. He will sail with the other American astronomers from San Francisco, just before Commencement, and will not return till next March. — The branch of coast survey under Prof. Quimby has begun its work for the summer, the first station being upon Observatory Hill. The triangulation will proceed across Vermont to Lake Champlain, and there unite with surveys made by the State of New York. — Prof. Hitchcock will soon publish the first of two volumes containing the results of the State geological survey. The whole work will require another year. — Military drill does not succeed at Dartmouth. A year ago, two volunteer companies were voluntarily formed by the students, but there is now so much difficulty in getting them to drill that the companies will probably be disbanded and the equipments returned to the State. — Pres. Smith has written to United States Senator Alcorn, who recently said that he wanted a Civil Rights Law passed so that a colored man could enter Dartmouth college as well as the school-house at the foot of the hill, pointing out to him several instances in which colored men have been members of the College.

THE Cincinnati University is getting itself organized, and has chosen for Professor of Ancient Languages and Comparative Philology, T. D. Allen, now a tutor at Harvard, and for Professor of Mathematics, H. T. Eddy, now a teacher at Princeton, N. J. Their salaries are to be \$3,500, and it is expected that the university will open next fall.

WE wish to call special attention to the advertisement in our columns of the West Newton English and Classical family and day school. Mr. Allen, the principal, is well known as one of our best educators, and the reputation of the school is fully established. When asked to what private school to send a boy, we always say, to Mr. Allen's school at West Newton, and feel that we have conferred a greater favor on the parent than on our friend Allen.

A NEW MUSIC BOOK FOR DAY SCHOOLS. — We call the especial attention of teachers and school committees to the advertisement of Messrs. Ogden & Leslie's new music book, "Silver Carols." The reputation of the authors make it out certain that the new book is all that its publisher claims for it. Specimen pages will be sent free to any address. Write to W. W. Whitney, Toledo, Ohio.

TEACHERS will be interested in the advertisement of Eldredge & Brother, which appears in the present number.

INTELLIGENCE.

PERSONAL.

MR. SEAVER, the newly-elected principal of the English High School, Boston, is a graduate of the Normal School at Bridgewater, afterward a graduate of Harvard College, in which institution he has been a popular professor.

WM. H. LAMBERT, A. M., principal of the Lewiston High School, has been elected principal of the Fall River High School, succeeding Mr. A. K. Slade, long and favorably known to the fraternity. Mr. Lambert comes to Massachusetts somewhat unknown to the teachers of the State; but in Maine he has held a leading position. His school work in Lewiston, as in Augusta, showed him to be a discriminating teacher.

MR. BYRON GROCE, of the Peabody High School, has been elected principal of the Watertown High School at a salary of \$2,000. Mr. Groce is well known to our readers as one of the Editorial contributors of the "Teacher," and all will join in wishing him the same success in the new field of labor that has attended previous experience.

GEORGE R. DWELLY, Esq., has closed his connection with the Watertown High School, and rumor says he has entered mercantile life, for which his keen insight into men and things admirably fits him.

R. B. CLARK, A. M., of Fitchburg, has through local occurrences been through the ordeal of a competitive election; but he needs no better victory than to have a re-election against so able a man as J. D. Bartley, of Concord, N. H.

EDWARD H. PEABODY, Esq., of Worcester, who returned to the teachers' ranks for a year by accepting the Pratt Free School of Middleboro', has re-assumed the editorial chair by purchasing the "Malden Tribune." Success to one

whose pen has always proved the "Teacher's" friend.

H. B. LAWRENCE, Esq., master of the East Needham High School, has been elected principal of the Pratt Free School, North Middleboro'.

MR. ELI S. SANDERSON, of the last advance class of the State Normal School, Bridgewater, has been selected as associate principal of the Maine State Normal School at Castine, of which Mr. G. B. Fletcher is principal.

MR. LORENZO B. GRIGSON, of Randolph, succeeds Walter Hoxie as assistant teacher in the Farm School, Thompson's Island, and Walter Hoxie, Esq., succeeds Mr. Grigson as principal of the Grammar School in Randolph.

GERTRUDE E. HALE, of the last advanced class of Bridgewater, has been selected as teacher in the Webster School, Cambridge.

NELLIE W. ALLEN, of the last class, regular course, at Bridgewater, has been selected as teacher in the Andrew School, South Boston.

MISS BEEDE, of Sandwich, N. H., has closed her labors as principal of the Grammar School in Revere.

LYDIA C. DODGE, of the Newton High School, has resigned, and withdrawn from the fraternity of teachers.

VIOLA F. LITTLEFIELD, of the Hamilton School, Newton, has resigned.

MRS. MARTHA M. BATEMAN, formerly Mattie M. Ring, has been transferred from the North Village School, Newton, to the Bigelow School, Newton Corner.

M. ISABELLA HANSON, principal of the Newton Training School, has been appointed teacher in the High School of that city at a salary of \$1,200.

MRS. O. H. BOWLER, special instructor of drawing in Newton, is to have a salary of \$1,500, for four days' work each week.

SPRINGFIELD. — W. W. Colburn, Esq., of Manchester, N. H., High School, has been appointed principal of the Springfield High School, with a salary of \$3,000. Mr. Colburn has established an enviable reputation in Manchester, and Springfield is fortunate in being able to secure his services.

BOSTON. — *Nomination and confirmation of teachers.* Miss Harriet E. Litchfield and Miss G. H. Tilden were confirmed as teachers in the Prescott School, and Miss Ella F. Howland and Miss Sarah Maria Hogan were confirmed as teachers in the West Roxbury district. The following were nominated on probation: Calista W. McLoud, as primary teacher in the Chapman district; Louisa P. Smith, as primary teacher in the Mather district; and Francis E. Browne, as assistant teacher in the Lewis School.

Orders Adopted. — That the City Council be requested to furnish accommodation for an additional Primary School in the Charlestown Prescott School district; that the City Council be requested to purchase a lot of land on or near Ashland Street and erect thereon a school building suitable for the accommodation of both grammar and primary classes; that the City Council be requested to purchase a lot of vacant land adjoining the lot on which the Chapman School-house stands for the better accommodation of said school; also that the City Council be requested to make such alterations in the Prescott School-house as to secure a passage from one corridor to the other, so that pupils can go to and from the class-rooms without passing through the rooms of other classes, and that a master's room be fitted up in said school-house; that the Tuckerman Primary School be supplied with a set of Prang's Natural History Charts: referred

to the Committee on Accounts; that the sewing-teacher in the Gaston School be employed to instruct all the classes at the same rate for each room now paid: referred to the Committee on Rules and Regulations.

ROXBURY HIGH SCHOOL. — An ordinance was adopted establishing the Roxbury High School, with the following special regulations in addition to the general regulations. The teachers shall be a head-master, a master's assistant, and one head assistant, with as many assistants as may be required, not exceeding one for every thirty-five pupils, and special teachers for French, German, drawing, and music.

Salaries. — The Committee on Salaries reported orders allowing Miss E. M. Parker the maximum salary as assistant teacher in the Bunker Hill School; Miss H. A. Smith, the second year's salary; Miss Rose Prescott, the maximum salary in the Primary Department of the Bowdoin School; Miss Elizabeth Gerry, the maximum salary as assistant in the schools of Brookline; and fixing the salary of the teacher in French in the Charlestown High School at \$600 per annum, which were severally adopted.

CAMBRIDGE. — Miss S. A. Trow was appointed to the Training School, and Miss H. A. Keeves to the Read Street School. Miss Evelina Brooks was appointed a temporary teacher in the Willard School. Miss Martha Samson was appointed a temporary teacher in the Webster School. The annual appointment of teachers was then made, the list of last year's teachers being substantially adopted.

A. P. Marble, Esq., of Worcester, has been chosen superintendent of schools in Cambridge, with a salary of \$3,500. This is an excellent appointment. Mr. Marble is one of our most intelligent and progressive educators. His six years' service in Worcester has been a complete success, and he is well entitled

to the promotion which his faithful and judicious services have secured for him. It is all the more creditable to him and the committee that the place sought him, not he the place. We think it will be well for our schools and for the profession when teachers and superintendents are selected by committees from those who have distinguished themselves by faithful service, rather than from the most importunate seekers after place. The best recommendation for an important position is "faithful service" in a place of less responsibility.

LYNN. — The following teachers were

appointed : Abbie Burrill, sixth assistant in the Whiting School ; Katy D. May, teacher in the Tenth Primary School ; Margaret E. Currier, assistant teacher in the High School. An order was adopted authorizing the use of Eaton's Arithmetics in the public schools.

J. C. Averill, who graduated at Amherst College with the highest honors in 1870, has been engaged as principal of Leicester Academy for the coming year. Mr. Averill has taught two years at the military academies in Poughkeepsie and Sing Sing, N. Y. C. A. Wetmore, the present principal at Leicester, will soon go to Colorado for his health.

Books.

MANUAL OF FRENCH POETRY, with Historical Introduction, and Biographical Notices of the Principal Authors. For the use of the School and the Home. By A. H. Mixer. Published by Ivison, Blakeman, Taylor & Co.

Manuals of English Literature are numerous, and have done much to give a general knowledge of the development and growth of the English language and literature. In the introduction to this volume the author has done something like the same service for the French language.

To one acquainted with the origin and development of the English language it will appear that the French synchronizes, in its origin and development, very nearly with the English, and attains its classic period with Malherbe, a contemporary of Shakespeare. From this period we have the principal authors, chronologically arranged and represented by numerous and characteristic selections, — with a brief biographical sketch, designed to furnish the leading events in the life of each, and to indicate especially his literary rank.

It is not intended to take the place of

the French Readers in use, but to furnish additional facilities for the more advanced and critical study of the best French authors. We feel sure that it will be found a very useful and interesting work, both for the school, and for those whose study of the language in schools will find a fitting supplement in this manual of French literature.

THE PARENT'S MANUAL ; OR, HOME AND SCHOOL TRAINING. By Hiram Orcutt. Published by Thompson, Brown & Co.

This book, prepared especially for parents, who are here recognized as the *principal* educators of their children, will be found to contain many wise and timely suggestions. When we speak of education, it is too much the habit of us all to refer to our schools, which are, in fact, primarily little more than special means for teaching certain branches of learning prescribed by statute. I say, primarily ; and only so far as the successful performance of this prescribed duty places the teacher *in loco parentis* does the parental responsibility attach to the teacher. Not that we would, by any

means, relieve teachers from any portion of the responsibility which justly attaches to them. We wish only to emphasize the responsibility of parents, as the author of this manual has very properly done.

If the pupil's knowledge of grammar, arithmetic, etc., is at fault, the blame may attach chiefly to school instruction. But the child is not *educated* wholly or chiefly at school; and hence such a work as this, addressed to parents, and indicating their true relation to the education of their children, is peculiarly valuable.

It is, as the author assumes, only by the wise and conscientious co-operation of parents and teachers that our children can be properly educated; and this manual, if it has the circulation it merits, will make the home and the school mutually helpful in the great work of education.

WARREN'S BRIEF COURSE IN GEOGRAPHY. Published by Cowperthwait & Co.

We have long been of the opinion that our school geographies contained too much, and that the time given to this branch of study in our schools is too long.

For six years the geography lesson is one of the principal studies in our Grammar Schools; and when the pupils graduate, how meagre is the knowledge they take with them.

The lessons are learned, recited, and — by a beneficent provision of Providence — forgotten. We are glad to see that there is a tendency to reform this matter; and this "Brief Course" — which is full enough for any school geography — is an effort in the right direction.

Then the *method* seems to be good, — teaching geography as a science, rather than as a collection of unassociated facts. Another feature, making the study of the maps the leading object, and the description part subordinate, we approve. We think a study of these maps, containing only the principal natural features and a

few of the most important places, will make a more permanent impression and leave better results than we get when we undertake to teach more than any one can learn and retain. The illustrations are very good, and will aid the text very much in giving vivid and correct impressions.

TWELVE LECTURES ON THE HISTORY OF PEDAGOGY. Delivered before the Cincinnati Teachers' Association. By W. N. Hailman. Published by Wilson, Hinkle & Co.

This is a book that should be in the library of every teacher.

It does not profess to be "an exhaustive history of pedagogy," but it is claimed "that the perusal of such a sketch, while it invites to the careful study of the history of pedagogy, is, in most cases, almost indispensable for a correct appreciation and application of historical facts subsequently acquired."

One gets in these lectures at least hints of the origin and development of the leading principles of modern education. He becomes acquainted, too, with the names and some of the principles of many of the most prominent thinkers and teachers who have, from time to time, contributed their thoughts and experience on the subject of education. When our teachers get to studying the suggestive speculations of Bacon, Rousseau, and Locke, and become interested in the labors of Comenius, Francke, Pestalozzi, and Froebel, we shall have less mechanical routine teaching, and the *profession* will be recognized as such by the community. The great want of our schools now is, teachers who are so thoroughly in earnest, and who have such a desire to avail themselves of the experience and best thoughts of others, that they will not be satisfied with anything short of a full and consistent system of pedagogy, based on the profoundest psychological speculations and tested by the broadest and most exhaustive experience. We thank the author and the publishers of these lectures, and "call for more."

THE BOSTON UNIVERSITY YEAR BOOK,
FOR 1874.

It is not always easy to determine what are the most important and significant events of the times in which we live. The invention of the art of printing scarce made a ripple in the current of contemporary history; and the origin of some of the most important institutions in the world is lost in obscurity, because in their beginnings their possibilities of growth and power were not recognized,

The Boston University, which has so quietly established itself in our midst, with scarcely "the sound of the hammer," seems to us to be one of those enterprises destined to exert a greater influence for good than many of the more pretentious institutions that assume so much importance in the annals of the times.

Incorporated in 1869, it has in the period of five years quietly organized its several constituent departments, and put them into working order. They consist of the Preparatory Departments, the Colleges, the Professional Schools, and the School of all the Sciences. At the present time the number of students in the Preparatory Department is 188; in the School of Liberal Arts, 22; in the College of Music, 16; in the School of Theology, 100; in the School of Law, 81; in the School of Medicine, 78; in the School of Oratory, 36: in all about 500.

Such unprecedented growth is due to the fact, that, while availing themselves of the experience of the past in this and other countries, the founders have put the institution in harmony with the spirit of the age. Untrammelled by tradition, they seem to have exercised a wise eclecticism, availing themselves of the best, and providing for what is called for by present exigences. The controlling ideas which have governed in its organization are distinctly stated in the Year Book, and are such as to commend themselves to all the friends of thorough and progressive education.

We hope they will at an early day

establish one more department, viz. a Normal School Department, for which they have such excellent opportunity at very little additional expense.

If teaching is to take rank as a profession, we must have professional schools for those whose general education places them beyond the influence of our present Normal Schools, — where those who have completed a collegiate course may enter upon and pursue a thorough course in the principles of didactics or pedagogy.

Our State Normal Schools are doing a good work, — we have no disposition to underrate them; but we want a Normal College. So far as we know, there are few, if any, of the graduates of our colleges who purpose teaching in our High Schools, that connect themselves, after graduation, with the Normal Schools already existing. Nor can these institutions now existing meet the wants of this class of teachers.

We hope that this want will be supplied, and the *profession* be recognized; and we know of no institution which can do it to better advantage than the Boston University.

THE INDEPENDENT CHILD'S SPELLER.
Printed in imitation of Writing. By J.
Madison Watson. Published by A.
S. Barnes & Co.

This little book seems to us to contain several good things. The slate attachment is certainly a happy thought; and we know of no more interesting and profitable work for the children in our Primary Schools than copying the words and sentences contained in this book. It happily combines *writing* with *spelling*, and by its classification of words suggests principles of pronunciation.

BADDECK AND THAT SORT OF THING
By Charles Dudley Warner. Pub-
lished by James R. Osgood & Co.

PRUDENCE PALFREY. A Novel. By
Thomas Bailey Aldrich. Published
by James R. Osgood & Co.

It is not necessary to say more than

that these serials, which excited so much interest as their several instalments appeared in successive numbers of the "Atlantic," are issued in book form. They are just the books to take with you to the sea-side or to the mountains. A rainy day once or twice a week, with these books in your valise, becomes a positive luxury; and you may say with Macbeth, "So foul and *fair* a day I have not seen."

THE COLUMBIAN SPEAKER, Consisting of choice and animated pieces for declamation and reading, selected and adapted by Loomis J. Campbell and Oren Root, Jr. Published by Lee & Shepard.

We have looked over these selections with much interest. They are, almost without exception, new, — that is, they appear for the first time as selections for declamation and reading, — and seem to have been chosen with much judgment and good taste. Although smaller than most of our "Speakers," it will be found to contain about as many *fresh* selections as any of them.

THE AMATEUR ACTOR. A collection of plays for school and home, by W. H. Venable. Published by Wilson, Hinkle & Co.

These selections, most of them from the writings of standard authors, are made with much taste and judgment, and are adapted for easy representation as school or parlor plays.

The introduction, containing full directions for making all necessary prepa-

rations, will be of great service in most amateur clubs, in the matter of stage management.

THE READING CLUB AND HANDY SPEAKER. For readings and recitations. Edited by Geo. M. Baker.

This is the first number of a series which the editor proposes to issue from time to time, and for which we are happy to see there is a great and increasing demand.

The Reading Club has become an institution, being found in almost every town and village. Mr. Baker has a way of getting hold of all the gems in our current literature, and furnishing them to these clubs in a cheap and tasteful style that must give them a great run.

BOOKS RECEIVED.

FABLES IN SONG. By Robert Lord Lytton. Author of Poems by Owen Meredith, etc. Published by James R. Osgood & Co.

THE LEGEND OF JUBAL AND OTHER POEMS. By George Eliot. Published by James R. Osgood & Co.

A NEW TREATISE ON THE FRENCH VERBS, ETC. By Alfred Hennequin. Published by Ivison, Blakeman, Taylor & Co.

PROGRESSIVE AND PRACTICAL METHOD FOR THE STUDY OF THE FRENCH LANGUAGE. By F. Duffet. Part 2d. Published by Wilson, Hinkle & Co.

THE MASSACHUSETTS TEACHER.

[MRS. A. C. MARTIN, Editor for September.]

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No. 9.

WHAT SHALL WE ATTEMPT IN ELEMENTARY SCHOOLS?

A Paper read before the Elementary Department of the National Educational Association, in Detroit, August 5, 1874.

WHAT I have to say about Elementary Schools* is based upon the fact that, for the great mass of our population, they are the only ones. Figures show that of the children at any one time under school influence and carrying that influence to their homes, not more than one in twenty, in many places not more than one in fifty, are in the High School. Whatever, then, is done for the education of the vast majority of children must be done before they are fifteen.

* * * * *

I am not repeating personal opinion only when I express grave doubts as to the result of our elementary work. The conviction is gaining ground in our communities, that while we have gone on multiplying schools, and contriving machinery of the most comprehensive and elaborate kind to meet all externals; somehow the very substance of the matter has escaped us. The work we do is not adequate to the machinery we have prepared for it.

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Does this seem a serious arraignment, a heavy charge? The criticism is not half so severe as may be heard when the

* The term is understood to include the "Common Schools" throughout the country, and where a graded system exists, all below the High Schools.

best friends of public schools speak frankly about them. If I say time wasted, they will say time worse than thrown away. If I say nothing done, they will say everything done, to dull and to deaden, to cramp and to dwarf.

To no one cause can the difficulty be traced. Some of them — like the plea for what is miscalled economy, which really is frugality, cheapness, not to say meanness — are most unworthy and will disappear of themselves. Our friends in the Normal Department are discussing the best means of giving us the indispensable boon of abler teachers, while the better educated men on all our committees are engaged in a hand-to-hand struggle for better text-books against the craft of "much-devising" book-sellers. But none of the much-desired improvements in these respects will open to us the better way, until we correct our present misconception of the mind of childhood, both as to the way it acts, and the amount of work it can easily do. Of things fairly within its grasp, the childish mind will take hold with the greatest readiness; and the vividness of childish impressions and the tenacity of recollection are proverbial. It is very curious that, instead of availing ourselves of these faculties, we have dwarfed and cramped the child's opportunity to the narrow limit of a Reading-book, a Speller, a Colburn's Arithmetic, and a Primary Geography. There are few schools now in which a child passes beyond these books before he is ten years old. Moreover, we blind ourselves to the fact that the compass of a child's mind is wide, rather than deep or penetrating, and so, being pent up in this narrow line of Spelling, Arithmetic, and Geography, the daily lesson soon carries him beyond his comprehension. From the moment that happens, the work has to be all done over again later; and then begins the puzzling of the brain, the dulness of a task oft-repeated yet never wholly understood.

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Somebody said, not long ago, that our way of dealing with children might be called the "linear method." We make them walk a narrow line where they are soon out of their depth. The true model of that sort should be the circle, — the child's mind being in the centre, and led out thence on all sides towards the circumference. The circumference widens every year, as our horizon does when we mount upward.

The Lessons in Science, which have been so widely introduced as oral instruction, were an attempt to break away from the linear method. Keeping almost entirely to the descriptive side of the subjects they treat, they have been easily prepared by the teachers, and have proved very attractive to the children; but in the years that have elapsed since the success of the Oswego method brought object-teaching into such vogue, the complaints against the hardness and mechanical drill in our Elementary Schools have not lessened, but have rather grown louder.

If you will compare dates, I think you will observe that it is during these very years that our elementary school system has been forming or crystallizing into its present shape; and of that system, as it now stands, the Examination is the key-stone.

I believe I meet the protest which has been made to much of what I have said in criticism of the schools, when I pronounce the kind of work required in the Examinations, as now practised in the Elementary Schools throughout the country, to be the one great reason why our methods are so mechanical and wooden,—the barrier which keeps us to this narrow path of study, and prevents us from escaping from the tread-mill into which we have been driven. As I have complained of the mass of geographical detail—the reiteration of the rules of syntax—the year-in and year-out plodding at arbitrary processes in Arithmetic—the dead drag upon the memory by which all this is accomplished,—how many of you have said to yourselves, “It may be true, but in no other way can the pupils be made ready for the Examinations.”

Just what part committees, superintendents, and teachers have taken respectively in the argument (doubtless to most of them an unconscious one) which has settled the matter, I am not able to distinguish; but the course of it seems to be, in brief, as follows: Examinations are a means of education, universal, indispensable; but only certain things, taught in certain ways, can be made to show at an Examination,—can be brought into court as it were; therefore we have bound ourselves in bonds (that have proved of iron) to teach only these things in these ways.

So in answer to any criticism, the Grammar School teachers would say to me, “Our method is the result of years of experience. We must prepare these scholars for these Examinations, and we find that nothing but this very repeating and re-repeating will do

it. They learn South America this year; but if they don't do it again next year, it will be forgotten. So long as committees set Examinations, and we and our work must stand or fall by them, so long must we keep on as we are, plodding, — wearisome and irrational though it may be."

My reply to such a protest is this question: Is it an Utopian vision, an impossible dream, to propose as a remedy for the inadequateness, the narrowness of our Elementary Schools, the doing away with the whole system of Examinations, as we now understand them?

I admit that they are useful in their place — for certain ends indispensable: but that place is not an Elementary School; those ends are not the training of children. The idea of them, first and last, belongs to modes of thought and study wholly remote from childhood. In an evil hour, it was imported from its place in college work to our Elementary Schools. The college, receiving its students from many different sources, must set some standard to which all must conform, in order that all may begin to work together; hence the need of an Examination, and also the need of preparing those who intend to pass it by similar ones in the upper schools. But in Elementary Schools no such need exists. The children in a city or town are all under one head. The superintendent knows, or ought to know, what is their work, and under what influences they are, as they move from class to class. The teacher, if she be fit for her place, is more competent than any one else to say who shall be promoted; and one day each month devoted by committees to watching the regular work of a school will test it better than the strictest half-yearly Examinations.

After all our pains to set tasks that can be tested by "Examinations," how difficult it is to do justice, either to scholar or teacher, an audience like this knows better than I.

But the chief objection to our Examinations in Elementary Schools comes not so much from their insufficiency as a test, but, as I have already hinted, from the very nature of childhood itself. In the upper schools and the college, the student is learning to divide his knowledge into accurate and inaccurate, and to judge of it; he is fitting himself to meet crises in life, to which he must summon for instant use all his power and all his acquire-

ments. In such a work the stated Examinations are no doubt a necessary, a valuable help. The want of such a training is one of the losses which the pupil who leaves school at fourteen must suffer. What he gets of that training he must get for himself in the experience of life; any attempt to give it to him before his mind is mature enough for it, is as foolish as to expect the manly strength of forty from the beardless boy.

If a child's mind is growing naturally and freely, it appropriates a thousand things, of which it could give no account next year or next month even, but which all go to make it full and strong at last, and without which it will be but a meagre starveling. To a fresh, bright boy or girl, wisely guided, but neither cramped nor forced, the fair, sweet to-day is the outcome of many fair, sweet yesterdays; but it would be the idlest nonsense to set them to answer what went to make them so. To do to-day's work rightly, not to prepare for some future ordeal, is the only possible standard in the teaching of children. What that daily work makes their minds, not what they have acquired, is what will tell on the future man or woman.

Not until the child is capable of self-activity — that is, of working upon his own mind — and is conscious of the power, is there either justice or sense in applying a system which secures its ends by Examinations. I think we hardly realize how late the power of spontaneous reflection or reasoning is developed in a child, because most persons will mistake the child's following such a process in another for his own original work.

The end of the first year in a High School is early enough to try the scholar by an Examination. Some advantages may be urged in favor of "a leaving Examination" in the Grammar Schools for those who go no farther; but if the public mind were once disabused of the prevailing idea that Examinations are all efficient, all sufficient, I believe that the evidence that a scholar of fourteen has faithfully followed a course of study under a teacher of known ability, would as far outweigh a high percentage on examination papers, with common people, as it now does in the more discriminating minds of cultivated men.

I am aware that I am suggesting a bold innovation; but I already perceive a tendency to lessen the number of Examinations. In several States, the Normal Schools now receive pupils upon

their High School certificates, and in Boston, the Grammar Schools pass on their classes to the High Schools without an entrance Examination. These I hold to be signs of the time when we shall see "inspection" take the place of examination, when the supervisors of Elementary Schools shall know by weekly visits the condition of every class and the standing of every pupil far more surely and far more justly than is possible in the most searching examination. Of course, it will be said that a system of "inspection," rather than of set Examinations, will require a larger supervising force; but I hold that the ideal towards which we should strive, should be, not what is *easiest* for the committees, but what is *best* for the children.

* * * * *

The ideal of elementary education surely ought to be a discipline that has taught the scholar steadiness and control, and has given him facility of working power; that is, has made him able *to do something for himself* intellectually in matters that are within the ordinary comprehension of his age, while besides that, it has developed "the conscience of thoroughness." The school work ought further to supply the largest possible amount of that general information about nature, history, and human life, which, without pretending to exactness, is nevertheless the source of a very large part of all the interest and pleasure beyond the merely physical, which is possible in this life.

The aim of this discipline is a training which shall be to the scholar both the incentive and the guide to that self-training which is the only perfect master. Beneath that discipline, and yet above it, transcending it, shall be an inspiration, born out of the knowledge of the highest things, out of contact with the best and bravest the world has seen, — an inspiration which shall prompt him to strive for the attainment of high intellectual and moral character.

We fail of the discipline because we only require *memoriter* study of rules the pupils do not understand; and we fail of the incentive and the inspiration because we give them no glimpse of the best and the brightest the world knows.

How we might adapt our present studies, and what it is imperative to add to them, are the answers to the question, "What shall we attempt in our Elementary Schools?"

I know very well that those who are content with the present

state of things, will suspect me of wishing to inaugurate a reign of pleasing indefiniteness, of placid amusement, that would soon drift into veritable idleness and an indifference worse than anything we know now. May that day be as far from the schools as it is from my thought! I would not relax the drill or the discipline, but I would put it on a rational basis. I would increase rather than diminish the *memoriter* tasks; but I would make sure that every such task had for a subject something in itself worth the knowing.

In briefly outlining a course of study for our regenerated schools, I confine myself to schools as they now are, so far as age and time are concerned. What Kindergartens or the like might do for earlier preparation, is not within my limits, nor do I venture to propose any radical changes in the subjects of study, much as I would like to see Latin taught in the last two years of the Grammar Schools, taught as the key to the idiom (or dialect, as it were) in which the cultivated and scientific thought of the educated of our race has so long been expressed.

I am also disposed to refrain from pressing my own views in regard to English Grammar, for I am aware that they would seem extreme. There is much talk now about a new system of Grammar, wherein etymology and philology are to take the place of the old syntax and the present analysis; but I cannot see that it is one whit more sensible to teach scholars, who know nothing of Latin and French, to memorize the derivation of words, than to commit to memory lists of neuter verbs or of adjective elements. I hope for the day when the attempt will be more to teach children how themselves to use the written language, than to make mere comments upon words used by others. Beyond learning the parts of speech and such distinctions of subject and predicate, and the use of pronouns, as would enable the scholar to reach the grammatical sense of what he reads suited to his age, I would leave all the study of grammar books as we know them now, to the last year of school. I think those who leave earlier gain nothing by trying to study what they cannot understand.

The Spelling should properly be classed with Grammar, as it pertains only to the written use of the language. So long as our dear mother-tongue is the many-colored, many-threaded, curiously-twisted strand that it is, I fear the spelling must be a long

task for the memory ; but there are people who maintain that children are drilled more on the *oddities* of the language, its quips and cranks, than on its every-day working material. It ought always to be confined to words within the range of the pupil's mind and experience, and its aim ought to be to teach attention to form by the eye, so that the most of it can be learned in reading.

In the Arithmetic we shall find the main source of mental discipline for the lower schools ; yet many persons could no more explain in what the discipline consists than they could account for the frequent failure to obtain it from the study. That mathematical reasoning will not teach to reason, in any sense that we use the term in other subjects, is evident enough ; but the use of the study is in the power of continued attention which is gained from it, and the ability to distinguish the particular point sought for, and to go straight towards it through all the conditions of a problem. This last does not, of course, enter into the work of very young children ; but I think, besides the steady attention required, there is a great good to them in the absolute right and wrong of work in Arithmetic. To understand this, and to test it by different kinds of proof, is the best intellectual lesson a young child ever receives. It is a lesson, moreover, which is invariably a pleasant one, if the work is not too hard or too long. The satisfied tone which reports, "It is done and it proves," is in itself proof of the good the lesson does.

The work in Elementary Drawing has this same advantage of evident right and wrong, which gives it value for discipline over and above the acquirement of technical skill that is its special aim. "The line is straight or it is not," "The copy is exact or it is not," are conclusions obvious to the youngest or the dullest ; and I cannot repeat too often, that to induce children to make just conclusions for themselves is the best, the greatest work that we can do.

But it is a melancholy fact that the study of Arithmetic now means the committing to memory a succession of rules for performing arbitrary processes, unconnected with each other or with any rational principles. The result is not an advance and development so as to enable the mind to state premises and conclusions for itself, but a slow stamping of the order of the figures upon

the brain by going round and round in the tread-mill. A Mental Arithmetic is put into the hands of the child almost before he can read it. Very many classes are required to commit to memory the questions, as well as to analyze them. Is it any wonder that physicians say that when children are ill, it is the Arithmetic that comes to torture the little wandering brain?

It would be incredible, inconceivable, except for the facts before us, that, with all the clamor about object-lessons, with all our philosophy about making the hand and the eye assist the brain, we have nevertheless actually taken the slate out of the children's hands, and made the mind work upon numbers unaided and alone! No stronger proof of the want of consistent theory could be asked than this downright contradiction of so-called principles.

So great is the dependence upon Mental Arithmetic that very many Primary Schools do nothing at all about Written Arithmetic. You can find plenty of children, ten and eleven years old, who know nothing of figures on the slate. A few weeks ago, I met a party of girls returning home with their books in their hands. They were all, except one older, eleven years of age. Only two in their school, a so-called "intermediate," were under eleven; some were thirteen; a few fifteen. They had in their hands a Primary Geography, a Towne's Speller and Definer, and a Colburn's Arithmetic, while a Fourth Reader, left at school, completed their outfit.

I asked, "What work do you do on your slates?"

"We don't have none," said one.

"Have you never learned about Long Division?"

"What's that?" was the true Yankee answer, question for question.

"We don't do figures; we never did," they insisted. "We have Colburn. We learn it by heart." While the older one, who began to appreciate the situation, said, "They don't do Division to their school. We only do Written Arithmetic to my school. I am in the Grammar School."

I tell it to you as I heard it, not setting down aught in malice.

I would reverse this process entirely. I would teach the "Art of Numbers" first. Let the children begin to make figures on their slates as soon as they can hold their pencils. Let them

learn to add, subtract, multiply, divide, and to prove the questions, and practise till they are so familiar with the numbers that they can use them rapidly, but always *at sight*; let the hand and the eye assist the mind. I would not make stumbling-blocks of "borrowing" and "carrying." Teach that as Nature teaches how to walk. Teach how *to do it*; the reason why will come of itself afterwards.

It is this rapid use of figures, adding long columns, etc., that is of real use hereafter. The practical value of Mental Arithmetic, so far as results are concerned, is vastly overrated. How many men do you know who depend on purely mental calculations in matters of business, or if they do, how many would be satisfied as to the correctness of the result? The ready mastery of figures is more easily gained before the age of ten than after. Not till then, however, is the time for the Mental Arithmetic, nor even then would I give it so large a place as is common. In nothing else does the difference in the natural powers of children present so great a difficulty. The dull one is not helped by the bright one's quickness, but instead is bewildered, at times quite dazed by it. Moreover, I somewhat question if the power of continued attention, of which I have spoken, is as well cultivated by short mental exercises as by longer work, requiring the help of a slate. I myself like Colburn's Arithmetic used only in the class, under the teacher, and with book open, but I can conceive of a plan which should unite the Mental and Written Arithmetic in the lessons for scholars more than ten years old. In that Arithmetic, you may be sure, I would have no written rules such as now disfigure our books, turning the work into a kind of trickery, and puzzling the scholar with such jargon as,

"Invert the divisor, and proceed as in Multiplication."

"Divide the amount by one, plus the rate per cent expressed decimally."

"Multiply the commodity by the price, and divide by the value of a dollar expressed in the same unit."

"Take twice the root just found for a trial divisor."

In the name of common-sense and reason, let us away with such absurdities! Let us teach the scholar that the same principles which apply to the simplest exercise in Mental Arithmetic explain all the problems that can be presented to him. Very few

Grammar School classes are taught that the simple analysis which answers the question, "If one orange costs four cents, what will three cost?" or "If three oranges cost twelve cents, what will one cost?" is all that they need to help them thread the intricacies of fractions, of denominate numbers, and of interest problems. On the contrary, the chances are slender that the pupil will not leave the Mental Arithmetic with the conviction that there is no difference between three times four and four times three; and so he will explain a question in English money, —

"I multiply by 20 because 20 shillings make a pound"; and a moment later he will say, "I divide by 20 because 20 shillings make a pound."

Do you think I exaggerate the want of connection or coherence?

This very summer I found in a school a class of fifty girls, all twelve years of age. They had finished fractions, I was told, ~~and~~ knew them thoroughly. "They are to be two years yet in the school. Must they then study arithmetic all that while, in order to learn what remains?" — "Yes," was the answer, "that time is little enough to prepare them for the final Examination."

Then I listened, and as I listened, I learned why they must study so long. One after another rose and explained the work she had done, and this was the form they all used, with only the slight difference that one might be a little more weary in the heat than another. The questions were like this: —

"Reduce $\frac{5}{19}$ of a day to hours, minutes, etc." "I multiply the $\frac{5}{19}$ by 24, because 24 hours make a day, and that gives $\frac{120}{19}$ minutes = $6\frac{6}{19}$ hours. I leave the 6 as a part of the answer, and multiply the $\frac{6}{19}$ by 60, because 60 minutes make an hour, which gives me $\frac{360}{19}$ = $18\frac{6}{19}$ minutes. I leave the 18 as part of the answer, and I multiply the $\frac{6}{19}$ by 60, because 60 seconds make a minute," and so on.

On the blackboard in another room in that school, I found this written: " $\frac{8}{8} \div \frac{1}{8} = \frac{8}{8} \times \frac{8}{1} = 8$ Ans." Was there anything anywhere to prevent the sensible, simple answer, $\frac{1}{8}$ is contained in $\frac{8}{8}$ 8 times?

So listening and so seeing I found only another proof that Arithmetic is usually taught as a collection of arbitrary processes having no connection with each other, least of all with that Colburn's Arithmetic so laboriously learned in the Primary School.

I cannot blame the teachers, either there or elsewhere. They teach as they were taught doubtless ; and at any rate, they must follow the text-book the committees select.

But if Arithmetic could be taught in the rational way, for which I plead, one third, if not one half the time now given to it might be saved. Two lessons a week, instead of four, or at times only work enough to keep familiarity with numbers, ought to suffice ; enough of Algebra should be added to show its method and use ; and the drawing lessons ought to cover the elements of geometrical form : and I believe what the scholar learns there, could be used to solve the mystery of square-root, without resorting to such a device as "trial divisors."

If, then, so much time may be saved from the Grammar and Arithmetic, and if, as I suggested, the Geography shall be made subordinate to History and Reading, what use shall be made of the time thus gained ? This brings us to our sins of omission. So far we have spoken of the things which we have done as we ought not to have done them, but now arise the things we have left undone.

The common demand when narrowness of study is complained of, is for more science, more Natural History, etc. ; but the report of the Superintendent at St. Louis, while bearing witness to the value and interest of such lessons, says, "I cannot say that two hours a week used in this way would be as valuable as one hour." The experiment at St. Louis has been the best planned and the most carefully carried out of any in the country, and the Superintendent's opinion should have great weight. The impossibility of going beyond the descriptive side of the subject opens at all points the danger of turning it into memory work only. There is no more gained in learning by heart the names of parts of objects than in committing Colburn's Arithmetic.

I find myself, that one hour per week serves as a kind of thread upon which are gradually strung many facts which the scholar is led to pick up for himself, or it becomes a guiding line along which he learns to observe nature with his own eyes. Such study most happily takes him out of himself ; but I wish to see the additional hours gained by better methods of study devoted to something which will lift him above himself.

To do this we must open to our scholars the wide world of

books, the vast field of human thought and experience which they may explore in History, and in the books which are the monuments of our literature. In no other way can we bring the thousands and thousands of our pupils into contact with really great and powerful thinking minds, except by teaching a use of books which shall beget a love of books. I read this summer a criticism upon the schools, in which the writer said, "The trouble is they are taught only books, — books, — and nothing but books." I maintain the trouble is by no means "nothing but books," but *books with nothing in them*. A scholar who has had only a Reading-book, a Grammar, a Geography, and an Arithmetic, has never had any real books.

We have left undone the thing we ought to have done, in neglecting the reading of books that are books, and in neglecting the reading and study of History. The History of the United States is the only one I find in courses of study for Elementary Schools, and even that occurs very rarely. In one city they spend two years on the "Grammar-School History of the United States," and in another *three* years, using it a part of the time as a Reading-book. Ancient History seems unknown, English History likewise, and, as a consequence, it is not an exaggeration to say that most boys and girls of fourteen, who have not had cultivated homes, believe that the history of their race begins with the Fourth of July, 1776, or at the remotest, with the Landing of the Pilgrims.

If one hour per day could be given throughout the school course to some form of the study of History, how different would be the result.

I hold that every child, not a dunce, ought to know on its eighth birthday the names and the succession of the English sovereigns (mind, I don't say anything about dates, but the names and the succession) from the Conquest, and should also have an idea of Alfred and Cnut, as well as of Edward the Confessor. I choose this piece of History particularly because, as has been very happily said, it bears to other History of modern times very much the same relation that the multiplication table does to Arithmetic. It is learned very easily in virtue of the childish eagerness for stories; and long before they can read themselves, children will be able to repeat perfectly the story of Alfred and the cakes, of

Cnut and the tide, the Conqueror and the curfew, or the tapestry of Matilda, and so on, down through the rich store of English History to the traditions and stories of our own colonial times and of the Revolution.

The succession once accurately learned, it is a very short and easy step to relationships of the more obvious sort, father and son, brothers or cousins. I should not trouble them about the great-granddaughter of John of Gaunt, or Sophia, Electress of Hanover; but one who has not seen it tried would be surprised to find how soon a class can trace back Victoria to Henry the Seventh. There is a kind of "House that Jack built" fashion about it that pleases children, and they learn without knowing it. I leave out dates, as dates; but the notice of long reigns and short reigns, the kings that died young, or died unhappily, the queens that were beautiful, or the princesses that went away to marry great dukes or had kings come to woo them, the great battles, like Hastings and Poitiers and Agincourt, will gradually fix the idea of time correctly and ineffaceably in the mind.

Throughout I would impress upon the scholars that this is the history of their own people. No child in school is too young to understand that all that is great and noble in his nation is the outcome of centuries of growth, not the result of a short two hundred years.

Thus much of English History is a kind of alphabet, by which a child who leaves school at ten even, can decipher later for himself a great deal of modern History.

When so much has been learned, I would give Ancient History in the same way, not, of course, to learn successions of sovereigns, but to follow the story part, keeping the picturesque side foremost, dwelling most on what will kindle the imagination and waken a sense of heroism.

There is a kind of apprehension of great ideas in a child's mind, which has a value far beyond any attempts at comprehension, and we only need to bring the ideas to them.

I should condemn totally any system of "technical memory," but I do think there was great good in those old historical charts of the "Stream of Time," which showed the ancient kingdoms merging in the Macedonian Empire, parting to meet again in Rome, and finally separating into modern Europe. I should like

to see such charts hung again in their old places on the school-room walls, not by any means to be committed in names and dates by the pupil, but to be carefully and repeatedly explained by the teacher, and left by their silent influence to impress on the mind the flow of the river of time down the ages, the sweep of the nations over the face of the earth.

All that I have indicated should be accomplished by the age of twelve, and then the classes should turn again to a maturer study of English History, making it the base for some knowledge of the history of Europe, both mediæval and modern, by comparison, learning contemporaries, and the like. The practice of making out parties of famous contemporaries who met, or might have met, answers the double purpose of fixing dates, and of bringing out prominently the personal element in History which always captivates the fancy and fixes the attention.

In the last year of the course, I would give the History of the United States, as the natural conclusion of English History. With what different eyes will the pupil regard it in whose mind has been prepared this background which I have sketched. American destiny is a grand theme, but the lesson of the past is a wiser one, and I would rather instruct the boy or girl in the growth of republican institutions than dwell on their future greatness.

The political history of the country is the duller of work as it is now offered in schools, but linked with English History it has meaning and life.

The classes who have followed the course I have indicated, will feel that till the time of the Civil Wars we were one people, and will almost see for themselves that our Houses of Representatives are the lineal descendants of Simon de Montfort's House of Commons, and that Congress and Parliament alike are the successors of the old Saxon "Meeting of the Wise Men." Finally I would require a careful reading of the Declaration of Independence and the Constitution of the United States, insisting on the understanding of the obvious meaning of words and clauses. I would have no boy or girl finish the Grammar School course without committing to memory the preamble and conclusion of the Declaration of Independence, nor without at least a sight of the pages of Magna Charta.

Neither time nor my purpose permit me to indicate books for such study of History. If we want them they will be forthcoming. There are many admirable books for the purpose now in use in England.

Remember, I am not asking that children should learn this in any dry detail that could be literally reproduced twice a year in an Examination; but I desire for them such a knowledge of other times and other nations as shall lay the foundation for future historical reading, and shall fill the mind with a consciousness of a great wide world behind and beyond this in which we live.

No book of "Outlines of History," however thoroughly studied, can do that. The mind must have the picture filled with color and life, from which to make its own outlines. The writing lesson should be made a valuable assistant in this respect. Such a book as Miss Yonge's first volume of "Cameos of English History," used in that way, and reviewed by means of the written abstracts, meets just the want for the second study of English History.

The Geography ought to accompany every hour of work in History, and the habit of faithfully looking out places on the maps, and observing the effects which position and the like had upon the events of the history, is worth any amount of memorized facts. A child of eight cannot do much of this, but the places can be shown by the teacher and the foundations of the habit be laid. Throughout all the course, the lessons should be fixed in the mind by review questions each day, and by frequent comprehensive reviews of the whole ground. The composition lessons in the upper classes of the Grammar Schools find their natural place as auxiliaries in this review work, which both furnishes proper subjects and supplies material for thought.

Side by side with this course in History, and indispensable to it, should be the Reading lessons. Is it not incredible that with the whole world of literature waiting, we have given to these boys and girls eight years of Reading-books! With all the rich treasures of English poetry in our reach, we have set them Colburn's Arithmetic to learn by heart; and the measure of our shortcoming is incomparably greater, because so few of the children under our charge have any other contact with books than that at school. Here is the only opportunity for more than

three fourths of them, and we improve it by drilling them for rhetorical effect upon a few selections of prose and verse.

Once more I plead for Reading as a "stepping-stone," not as the pursuit of an art. It is an old-fashioned notion in these times, but I hold to it still, that a child should learn to read as soon as possible. There must be many who hear me who cannot remember when they could not read. I am sure I cannot. We ought to strive to come as near that as may be in the Primary Schools, and then should give the scholars the best of all they can understand. I would choose first, the classics of childhood, Robinson Crusoe, Grimm's Fairy Tales, the Arabian Nights, and along with them the stories of gods and heroes, the Mythology, the legends and traditions of History, ancient and modern, and I would take care to put within their reach, as the privilege for spare hours, Pilgrim's Progress, Don Quixote, and Shakespeare. I would even have the Iliad and Odyssey (illustrated) in every primary school-room.

When I have said something like this before, I have been answered, "They have these books at home; at least the real children's books." But that is unfortunately, now, an entire mistake. The children of the poor, who fill our Primary Schools, cannot afford them; the cheap series of "Ragged Dick" and his congeners have ousted them throughout whole communities: while as to the rich, I know not how to describe the intellectual poverty of many palatial homes, whose occupants partake only of the luxury of our civilization, not of the refinement of its culture. "I never saw any books till I came to college," said the son of a rich man, not long ago, as he entered the library of a professor.

All the books I have mentioned, even the Shakespeare and the "Iliad," ought to be read for the first time quite in childhood, to feel the glamor of the poetry; and all into which the element of magic or of allegory enter can never be fully felt at any time afterwards.

Had I time, I would not attempt to mark out a "course of reading." "Uniformity" would be the bane of what I seek to bring about. I would leave teachers or committees to choose at their liking pearls or diamonds or rubies; but I would be sure that all should be true jewels. I have only room for a hint or two as to the principles which should guide the choice. The

story side of History opens out into biography and narratives of sieges and battles; the study in science leads to essays by master-hands in the several subjects; while by choosing, year after year, books suited to the maturing mind, we come at last to a true "course of literature," not the fragmentary, hasty *résumé* to which we now give the name in the High Schools.

I would by no means keep to the merely pleasing, for a book that a child would not take up voluntarily may be extremely interesting when offered as a school task. I would let prose and verse alternate, not always day by day, but sometimes month by month, — the "Book of Golden Deeds" with "Evangeline" and the "Lady of the Lake," — the "Sketch Book" with the "Lay of the Last Minstrel." The child who begins with the "Wonder Book" and the old ballads in the "Children's Garland," will mount step by step to the "Iliad" and the "Historical Plays of Shakespeare." The oldest in the Grammar Schools will come to these, for we will no longer make the mistake of trying to understand everything; as thrilling story, as vivid dramatic representation, the boy or girl will apprehend them and will be stirred by them. No girl of thirteen should miss the lesson of Comus, and no boy should fail to know the heroic grace of a Bayard or a Sidney. In such reading, he who leaves the Elementary School will have some glimpse of the far-reaching vistas in the world of thought, may catch some breath of the divine air that may inspire the longing for culture, for the intellectual life, while those who remain for the High Schools will enter them from a plane far above the present one.

All that I urge for Reading, as a means for increasing the mental store, applies with equal force to the revival of the almost forgotten practice of committing to memory prose and verse. The schools where the practice exists are few and far between, and in most of them it is done by a preference of the teacher, rather than as part of a plan. At the same time the custom of learning Bible verses and hymns at home has in great measure died out, so that the number of persons who could repeat from memory for over half an hour grows smaller and smaller. What we lost as an educating power when we gave up the assiduous study of the Bible, will be an interesting question for the writer of the culture-history of this half the century. It may not be our

province to revive the habit, but it is our duty to see that the other practice of learning hymns or poetry does not die with it.

It may be said, "‘Memoriter work’ is just what is objected to." True, but with this infinite difference: the memory work I have condemned is so much dead-wood,—it bears no fruit. There is nothing to the mind beyond the rivers of the United States of Colombia, or the arbitrary rules of fractions; but give great thoughts or lines of music and beauty to learn, and the seed sown blooms in the character and life. This "committing to memory" ought to be made a regular exercise from the first day in the Primary School to the last before leaving the Grammar School. For the very little children, it may well begin in the words of the songs they sing, or in the daily repeating after the teacher couplets or verses. As they grow older, it may become a semi-weekly or a weekly exercise, setting longer tasks as the effort of memory becomes less from habit.

While the choice must always be of the best, making sure of the pure gold, it must be suited to the capacity of the child. It is quite as needful to take care to keep the lesson up to the child's power as to keep from going beyond it; in fact, unless failure meets harsh penalties, I think a child would be less harmed by having such a poem as Gray's "Elegy" given it when too young, than to let a girl of twelve learn "The Owl and the Pussy Cat" or "The Hen that Hatched Ducks." The aim must always be to lift upward, — a steady step by step, yet never a stride, — so that in this, as well as in the History and the Reading, let the pupil's stay in school be never so short, he will have had for that time the best that his mind could take in.

For the earlier years of the Grammar School, there are the old ballads, the great historic hymns, the stirring lyrics of Burns and of Scott, or the verses of Longfellow, that are to us as sweet household words; and none of those who remain through the course should leave without knowing at least "L'Allegro" and "Il Penseroso," "The Elegy in a Country Churchyard" and "The Skylark."

Such is the work in History, Reading, and "committing to memory" to which we might well devote one third of our school time.

I have not delayed you with any argument as to the capacity of the scholars for such work when they are once permitted to do it, nor will I enforce it now by quoting to you John Stuart Mill studying Logic and reading Plato at the age of twelve, nor tell you of boys and girls I know; for it might be answered that he had extraordinary talent, and that they are exceptions. But I will only ask you to watch carefully any children whom you know, who have access to good books, and see how far the books they choose are in advance of anything their present work in an Elementary School opens to them.

This has not been an argument for a "smattering," but a plea for foundations. All school work is but beginnings: the "smattering" is a flimsy framework that soon falls; the right beginning is a foundation that lies firm and solid, waiting for years, if need be, for the building thereon.

As we work now, we provide these children with only the scantiest, rudest instruments of culture. To teach to read and write is but to show them a stairway, but we scarcely speak a whisper to them of the vast halls to which it leads, and the priceless treasures they contain. To give them the mental store for which I plead is to show them the culture itself, — is to begin their own culture.

So far I have spoken for the sake of those whose only chance for study is in the Elementary Schools; but every word I have said is doubly emphasized when applied to those who pass on to the High School and the College. By just so much as those schools and colleges are filled with the flower of our youth, by just so much is it of importance that the early years be wisely spent.

The strain upon the girls in those critical High School years is half of it in the attempt to make bricks without straw, and many a youth in college laments as lost the precious years from eight to thirteen.

Believe that I speak not in fault-finding, but in sadness. Were all our schools like the poorest, I should still feel them worth the cherishing, yet I know our best fall far short of their opportunity. I do not underrate the lessons of order and obedience which our drill enforces, but I want to see the idea and the aspirations of culture offered to every scholar.

I feel most keenly that there are times when all the supporters of the public school system must stand shoulder to shoulder to defend it; but speaking here, "in the house of its friends," it was my bounden duty to indulge in no flattering words, no pleasing illusions, but to point out to you the danger that is upon us, and to warn you lest these boys and girls suffer

. "The worst
Of orphanage, the cruellest of frauds,
Stealth of their education, while they played,
Nor fancied they could want it."

Rather let us, in the new and better way, send them forth to the world's work hand-full and heart-full from the rich treasures in our keeping. So shall we ourselves no longer be worn to faintness with the burden of the day, but leading them to the pure wells, feeding them with the golden manna, our own souls shall be fed and refreshed; for never is it truer than in the things of the intellect, "With what measure ye mete, it shall be measured to you again."

[From the "*Rhode Island Schoolmaster*."]]

BEFORE SCHOOL.

"QUARTER to nine! Boys and girls, do you hear?"
 "One more buckwheat, then, — be quick, mother, dear!"
 "Where is my luncheon box?" — "Under the shelf,
 Just in the place you left it yourself!"
 "I can't say my table!" — "O, find me my cap!"
 "One kiss for mamma and sweet Sis in her lap."
 "Be good, dear!" — "I'll try." — "9 times 9's 81."
 "Take your mittens!" — "All right." — "Hurry up, Bill; let's run."
 With a slam of the door, they are off, girls and boys,
 And the mother draws breath in the lull of their noise.

AFTER SCHOOL.

"DON'T wake up the baby! Come gently, my dear!"
 "O, mother! I've torn my new dress, just look here!
 I'm sorry, I only was climbing the wall."
 "O mother! my map was the nicest of all!"
 "And Nelly, in spelling, went up to the head!"
 "O say! can I go on the hill with my sled?"
 "I've got such a toothache." — "The teacher's unfair!"
 "Is dinner 'most ready? I'm just like a bear!"
 Be patient, worn mother, they're growing up fast,
 These nursery whirlwinds, not long do they last;
 A still, lonely house would be far worse than noise;
 Rejoice and be glad in your brave girls and boys!

VERMONT DEPARTMENT.

H. T. FULLER AND J. C. W. COXE, EDITORS.

THE NECESSARY AND UNNECESSARY EXPENSES OF AN EDUCATION.

It has come to be a matter of serious import to the young men and women of Vermont, — the expense attendant upon the acquisition of a liberal education, and in a less degree, of the partial education obtained in our Seminaries and High Schools. I use the term *partial education* advisedly, for, although no education is, or can be complete, yet the times demand of the coming generation, more than of any generation that has preceded them, a liberal collegiate education.

Each year brings more and more cultivated, disciplined men to the bar, the pulpit, the press, the counting-room, — to the front in all professions and every sort of business. It is constantly becoming a more serious and difficult struggle to merit and obtain pre-eminence, without the aid of previous disciplinary study.

The age of self-made men, if we may limit the phrase, as it too often is, to those who grow by the spontaneous working of nature alone, destitute of, and despising the appliances of art, the slow methods of cultivation, the "line upon line," — the age of such self-made men is slowly passing away.

Vermont is not a wealthy State. Nearly the whole of her annual products are consumed in supplying bodily wants, and gratifying bodily desires. Only a very small percentage is available to increase the amount of capital invested, or to expend for books and brains, whose income, though it may not be any the less sure, is, to the average mind, by far less perceptible. The average of the young men and women of Vermont who manage in the end to secure a preliminary or a professional education, accomplish it by dint of sheer fighting against circumstances which, if not wholly adverse, are at least quite unfavorable.

These are none the worse for that ; but there is behind them a large, or I might say, a larger class, of equal ability and promise, who find the gates of the higher education hermetically sealed through an inability to assume the expenses which ordinarily attend school life. It is folly

to urge that all things are possible to him who *wills*. It is rather the experience of all, that many, very many things are utterly impossible, humanly speaking.

How many of us who teach can name a score or more of our pupils, who, with bright intellects, active and energetic bodies, and no apparent lack of ambition, regretfully drop out of the high school, academy, or colleges. Their life-work is dwarfed, their usefulness greatly diminished, a life-long obstacle is set down before them on account of the burdens which they must assume to obtain that which should be theirs of right.

The advanced classes in our high schools and academies, — the classes in our colleges would be increased one half, if the expenses could be diminished one third. The boys and girls of Vermont ask, "Is there any remedy for this?" And it may be that our sister States are not so rich but the same inquiry may be pertinent to them.

Is it possible for our young men and women to obtain an education at an average expense something less than the present?

If it were to be asked (and that is not probable), Does our common school system involve any unnecessary expenses? the answer must be in the negative.

It might, perhaps, be said, that this sort of thing is indulged in by those school districts which employ young girls to occupy their school *hovels*, for a pittance of from two to three dollars a week, with the privilege of boarding around, — and this some scores of districts are doing to-day, on the mistaken ground of economy. The unnatural sequence is, that they should grumble at the quality of the instruction they receive. Such an outlay may be, and doubtless is, as it ought to be, almost entirely unremunerative.

Too often the people, at their annual meetings, inquire, "How little *may* we, and not how much ought we, to raise for the support of our schools?" This remark is not intended to apply to the really poor districts, but to the many which are abundantly able to do better.

How such a machine as our school system can be run with so little lubrication, is already a matter of wonder to some, and will be still more a wonder to generations not far in the future. Would that some district legislators, in school meeting duly assembled, might see a hand writing on the wall, *Ex nihilo, nihil fit*.

I suppose that the average expense per term of the young men attending the higher schools, not including colleges, is about seventy-five dollars. Of this, fifty dollars will pay for board, tuition, books, and other necessary expenses. The remaining third goes for little nothings. The

system of self boarding, so widely practised, will, of course, bring the cost per term lower than is estimated above. Though this system has its virtue of economy, it is a necessary evil, and not to be encouraged beyond the limits of necessity, as the dyspeptic countenances of too many of our pupils will testify.

It accomplishes its end in utter defiance of the laws of health.

When we consider that this *is* a *necessity* to many of our young women, who rely, for the most part, on their scanty earnings as school-teachers for an occasional term at the academy, we are led more forcibly to ask if there is any remedy.

All this is more apparent, if we call to mind the fact that many of these self-supporting young women realize not more than three dollars a week from their faithful labors.

Let me follow somewhat in detail the expenditures of a pupil in our schools, and the remedy may be apparent.

Our average pupil, we will say, leaves home to attend school with many paternal and maternal cautions, and a moderate allowance of cash. After becoming domiciled and perhaps enrolled, he lays in a supply of books, some of which he afterwards learns are entirely useless, and which his modesty prevents his returning. Of course no modern academy is complete without one or two secret literary societies. To one of these he pays the usual fee, and becomes subject to bear his proportionate share of society expenses, which frequently amounts to no small sum. And he must purchase an appropriate badge. During the term, there will be sundry items expended in the interest of good fellowship. One or two subscription papers will pass, and it would "look mean" to refuse. At the close of the term, in many of our schools, there will be a public exhibition, and our pupil prepares to pay his part, at some considerable expense for costumes and etceteras. The teachers all round are frequently made the recipients of costly presents, when some simple testimonial would answer all practical purposes.

He then goes home, and the parental committee of ways and means carefully scrutinizes the cash account, and in vain endeavors to resolve itself into a committee on retrenchment.

However much we might wish it otherwise, it is a matter of honor among pupils to bear each his proportionate share of all these outlays. More than that, there is among pupils a certain undefinable sense of caste, into the regulation of which this matter of contributions enters largely. These expenses are unnecessary, but each feels he must do as the others do; and no man ever gets so old or so wise as to be entirely beyond this influence. We must not blame the pupils.

So it is from term to term, until, we will say, our pupil is on the point of graduation. There will then be class albums or class rings, and perhaps class suits. The pupil, if a lady, must be clothed in a dress made expressly for the occasion, and of very little use thereafter. He or she mounts the stage under the inspiration of a brass band, which he or she must help pay for, passes through the excitement of the day, and then goes home with an aching brain in the head, and an aching void in the pocket. The parents of some can afford it, but many a one, dependent upon self-effort, cannot afford it. It is of no use to chide individuals so long as these things are customs. If faculties as well as parents were to frown upon all expenses which they know to be unnecessary, and these are only a few, there will still remain numberless outgoes, for which each individual will be responsible.

A. R. SAVAGE.

"FINISHING HER EDUCATION" IN GERMANY.*

I WAS not aware, until I came to Germany, of a very usual educational custom here, which seems to me to be so original, and at the same time to possess such peculiar merit, that it should be made known to the rest of the world.

As a general rule, a Prussian girl finishes her school course at fourteen years of age. The new school law requires all children to be in school under the care of a teacher who has passed a government examination, from five until fourteen, — nine full years; so if her teachers have been as good as German teachers generally are, she is by this time well enough stocked with knowledge for all the ordinary emergencies of life. The German *maedchen* is now confirmed, having received from her pastor, or some other suitable person, special lessons to prepare her for this rite for one or more years beforehand.

Now that she has taken this great step in life, she is considered no longer a child, and the next necessity for her is to learn housekeeping, which means, learning to do with her own hands a great many things which girls in America, in the same station, leave to be done by servants. Sometimes she learns this at home, under the training of that German Haus-Frau, her mother. But a more favored plan is for her to go from home to the house generally of a pastor or teacher, and board there for some months, fulfilling all the duties of an elder daughter — that is, of a German elder daughter.

* From a letter to a New York teacher. By Julia S. Tutwiler. Kaiserwerth-am Rhein, May, 1874.

I asked a young lady here lately why German girls should undergo this expense and trouble to learn the simple household duties which they could just as well practise in their own family circle. "Oh, no," she said, "the feeling is very different; the girl has been a child all her life at home, and now that she has been confirmed, and is no longer subject to the school law, she must begin to be a *Fraulein*, — a young lady, — it would be very difficult for her suddenly to give up her childish ways, and assume responsible duties and a new position in the same circle where she has always been treated as a child. So she goes away and spends several months in diligently practising these new duties under kind but strict teaching; then when she comes back, she is ready to take her place, in her own estimation and that of others, as a useful little woman, ready to take upon herself a regular share of her mother's household duties, or if she has sisters, to alternate with them week by week in the care of the house and table. "I tried this plan after I was confirmed," she continued, "and I assure you, *liebes Fraulein*, that it was a great benefit to me in every way. I will tell you all about my experiences.

"I was sent to the house of an excellent pastor, a friend of my father, who had a kind young wife and a family of little children. There was only one maid-servant in the house, so there was of course a great deal for me to do. In the morning at six o'clock the maid always knocked at my door, and I had to rise and dress myself plainly and quickly, but very neatly, and go down into the kitchen. There I made the coffee while the maid attended to other duties. I had always to make three kinds of coffee in three different kind of vessels; one sort stronger and better for the Herr Pastor, his wife, and myself; another, for the maid; and an innocent, mild, milk-coffee for the children. Then I washed and dressed the three children; combed and brushed and plaited their hair; set out their coffee for them; gave them the *Butterbrod* they were to carry to school, and sent them off. Then I took coffee with the Herr Pastor and his wife.

"After breakfast (*Kaffee*, the Germans always call this first meal, because it generally consists only of coffee and bread and butter), I must wash all the breakfast things, except those which the maid had used, put them away, and get everything ready for dinner. For this meal, we always had soup, potatoes, the meat from which we had made the soup, and one sort of *Gemuese*" (this word in German stands for all sorts of boiled or stewed fresh vegetables, or mixtures of two kinds of vegetables, of which they are very fond). "O, what mistakes and blunders I used to make when I first began to get the dinner all by

myself ; sometimes a whole pot of soup was spilled over the stove, or burned so that nobody would take any of it. But they were very patient with my failures, and I soon learned to do better. Between breakfast and dinner I had to set the table for the second breakfast (*Fruehstueck*), and make a little coffee again ; but that was only a few minutes' work. After dinner, I washed and put away everything, set the table, and prepared the Afternoon Coffee" (a meal which takes place at three o'clock, or a little later in most German families). "Then I was quite free for the rest of the day ; changed my dress, and read, played on the piano, walked in the garden with the children, or did anything else I liked. The maid had finished by this time all her inside work of scrubbing, ironing, washing, and her outside work of milking, sweeping, or whatever else she had to do, and took all the care of preparing the supper and putting away the things off of my hands. I was treated for the first time in my life quite like a grown-up young lady ; the maid was told always to address me as *Fraulein*, which was something very new and delightful to me. Then at Christmas I had a table all to myself under the Christmas tree, covered with pretty things from the kind Herr Pastor and the Frau Pastor, and the presents that had been sent me by my own dear folks at home, together with their Christmas letters of greeting, praising and encouraging me, and telling me how pleased they were to hear that I was so useful and industrious, and so cheerful and content. O, it certainly is a good plan for our German girls, and I hope it will be always kept up."

Perhaps my American readers will be a little curious to know how much a German girl pays for the privilege of thus doing the work of an additional servant in her friend's house. From thirteen to fifteen thalers per month, that is about ten or twelve dollars in gold, is the usual price *paid (not received)* by the young lady who performs these labors.

If the parents of the young *Fraulein* have the means or inclination to give her a still higher culture, after she has remained at home for a year or two practising her new household accomplishments, she is sent to a "*hoehere tochter-schule*," "higher daughter school" literally, or, as we would say, a first-class boarding-school. If it is intended to make a teacher of her, she generally goes at eighteen years of age to a normal seminary, such as the one in which I am boarding, and goes through the two or three years' course, according to the grade of teacher for which it is her wish to obtain a government certificate. — *N. Y. State Educational Journal*.

THE VERMONT NORMAL SCHOOLS.

AN article in a recent issue of an influential paper of the State congratulates its people upon the financial exhibit of the treasury: that the State owes no man anything. All honor to those who pay their debts promptly, whether they be citizens, corporations, or commonwealths. The example, so far, is worthy of imitation. But there would be much more cause of rejoicing if all these obligations had been met on the plane of even and exact justice, — if an important fund, originally and sacredly designed to be held as a permanent educational resource, had not been wantonly perverted to the support of the ordinary machinery of government, and if some of the measures and plans for the permanent welfare of the State had been more liberally, and hence more wisely, sustained. There is such a thing as being "penny wise and pound foolish." Whether the adage is fairly illustrated in the relations of Vermont to her Normal Schools, the reader may judge by the following facts, especially by the comparison of the appropriations for the support of Normal Schools made by this and other States. New York has eight or nine such schools, each manned by a permanent corps of from six to ten teachers, and each receiving annually from the Legislature from fourteen to eighteen thousand dollars. Massachusetts has five such schools, exclusive of a Normal Art School, each employing from five to eight teachers, at an annual expense of from nine thousand to fourteen thousand dollars. Connecticut, Rhode Island, Maine, and New Hampshire have each one school, and appropriate from five to ten thousand dollars each for their support, while Vermont grants the *magnificent* sum of fifteen hundred dollars yearly to each of her three schools. There is not another State in the Union that can parallel this utter inadequacy of support. The wonder is that these schools accomplish half as much as they do. The students owe less to the public provision for the schools, than to teachers who perform, or try to perform, twice the labor they ought for very meagre remuneration. This self-sacrifice has gone far enough. The State debt is extinguished, now let these public institutions be thoroughly equipped and sustained. Every intelligent friend of education sees the need. Will the Legislature to assemble the ensuing autumn take this subject in hand and relieve us from this shame and reproach? It was a mistake, we think, that the last State Teachers' Association did not arrange to memorialize the next Legislature in this behalf. It is not too late yet to move in the matter. It belongs to the teachers to take the initiative. Will they unite in signing a petition, asking that at least to one of these schools may be furnished means adequate to enlargement of the courses of study and to corresponding increase of instructors, so that as good facilities for Normal School training may be afforded at home as abroad?

ESSEX JUNCTION.—The Graded School is for the ensuing year to be under the charge of Mr. J. C. Kennedy, of Troy.

LYNDON.—The High School secures the services of Mr. Clinton H. Moore, of the last class at Dartmouth College, as Principal, and retains the assistants of last year.

ALBANY Academy advertises as Principal, Mr. Jason D. Jenkins, of the class of 1874, University of Vermont.

WINDSOR.—The Anniversary Exercises of the Windsor High School took place on Wednesday afternoon last, and the crowded house evinced that the parents and friends of the school are taking a more lively interest in the advancement of education.

At the close of the exercises the diplomas were presented to the graduating class by the superintendent, Dr. F. L. Morse, accompanied by fitting words of congratulation and counsel. He then, in behalf of the school, presented to Mr. Perkins, the Principal, and to Miss Pollard, his assistant, a fine collection of books, as a testimonial of merited regard. The following are the names of the graduating class: Laura Dudley, Nellie A. Stone, Clara C. Twitchell, Sarah D. Winn.

RUTLAND.—In speaking of the closing exercises of the Rutland High School, the Rutland "Globe" says, "It was an eminent success in every regard, and must have fully satisfied the people that the institution ranks high among the leading schools of the State. The elevation of the character of instruction and general tone of the school within the past two years was evident. This result is due to Mr. Dana, the Principal, Miss Burnham, and their associates, who have so faithfully labored in the direction of elevating and raising the standard of culture and scholarship among the pupils. The Principal, Judah Dana, A. M., is well known as one of the oldest, most successful, and thorough teachers in Vermont. To him Rutland is mainly indebted for its now permanent and excellent system of graded schools.

WOODSTOCK.—The Fall Term of the schools of this village begins Monday, Aug. 31. William S. Dana, of Dartmouth, 1871, is the newly elected Principal of High School; the other teachers are the same as last year.

NORTHFIELD Graded School retains its former board of teachers, with the exception of the addition of Miss Clara Dickinson to the post of Preceptress.

POULTNEY.—The Alumni reunion, Aug. 13, of the Troy Conference Academy, will be long remembered as an eventful occasion in the history of the School. There were addresses by Bishop Peck, Rev. Dr. Newman, formerly Principal, Hon. R. A. Parmenter, of Troy, N. Y., and Rev. M. E. Cady, the present Principal, and other appropriate exercises. But the best thing done was the extinguishing of a heavy debt, which threatened seriously to impair the usefulness of the school.

MONTPELIER.—Mr. L. White, for the past five years Principal of the New Salem (Mass.) Academy, and for the five years previous a teacher in the Wesleyan Academy at Wilbraham, Mass., has been secured as Principal of the Methodist Seminary at Montpelier. We have not learned the names of the other new instructors.

ST. JOHNSBURY.—The village, at a school meeting, July 13, voted to suspend the High School and send the scholars from that grade to the Academy, the district paying for three years the tuition of all who pass the Grammar School examinations. The teachers engaged for the next year are as follows: Grammar School, Miss Julia H. Bailey; Intermediate, Miss Frances H. Babbitt; Sub-Intermediate and Primaries, Mrs. C. C. Morrill and Misses Katie L. Flint, Georgie A. Wright, Rosie B. Weeks, and Mary F. Underwood.

RESIDENT EDITOR'S DEPARTMENT.

THE NATIONAL EDUCATIONAL ASSOCIATION.

THE annual meeting of this Association, held at Detroit, on the 4th, 5th, and 6th of August, was of more than usual interest.

A large number of educators from all parts of the country was present, and the exercises were of the most interesting and important character. It is impossible to give an adequate idea of the interest at one of these national gatherings. Beside the new ideas obtained, the inspiration of such an occasion is not to be estimated. The former may be seized and circulated, as they are, in the journals of the country, and especially in the year-book of the Association, which will contain all the lectures and important discussions of questions of great educational interest; but the inspiration of such occasions can be felt only by those who actually meet, face to face. Nothing can do more to enlarge and elevate our views of the profession than an occasional meeting with those engaged in the same work. What before was looked upon as individual and special, becomes generalized. We find that the same problems that we have been trying to solve in our respective schools have engaged the attention of others in all parts of the country. We are often relieved of not a little of our pedagogical egotism, when we find that others have not only done what we had regarded as original with us, but perhaps developed principles and inaugurated methods towards which we, indeed, were tending, but had not reached. Several of the questions which have been discussed during the past year will excite additional interest from the contributions made by lecturers before the Association. Dr. Clarke's admirable address, with those of Profs. Orton and Hosmer, will furnish new material for the discussion of the co-education of the sexes. President White's lecture on a National University, and State institutions, to take the place of "sectarian" colleges, will furnish texts for many articles in our educational journals; and, in fact, there is hardly a question of organization, supervision, or instruction that has not received a new impetus from this meeting. The paper of Mr. Dunton, of the Boston Normal School, was carefully prepared, and presented a very just and discriminating statement of the requirements of Normal School instruction; while Mrs. Martin's paper, which we publish in this number of the "Teacher," was full of suggestions on the course of instruction and methods of teaching in our grammar schools.

When the proceedings are published, as they will be soon, they should be in every public library in the land; and the teacher who has not a copy in his private library, will deserve to be dropped at the next annual election, — as wanting in a professional interest in his vocation.

SOME ACCOUNT OF THE WORK DONE BY THE SEMINARY AT AINTAB, IN TURKEY.

WHEN the school opened in 1860, we received little girls of twelve and fourteen years of age, who had only what we should call a primary school knowledge of Arithmetic and Geography. A three years' course of study was marked out when we had in Armeno-Turkish no text-book, except the Bible, suitable for the use of the pupils. All the common schools were in the hands of men "settled for life" as it were. At least they had no wholesome fear of losing their situations if they were not "up to the times," and consequently no ambition. They had settled into ruts deep as the mule-paths in the soft limestone ledges of the mountains. They taught twelve months in the year, and about twelve hours in the day. Squatting on their cushions at the upper end of the room they received each child separately, bidding it speak fast and loud. The lessons were read or recited at the top of the child's voice and the utmost of its speed, the rod being held ready to come down on the unlucky bairn who failed. No explanation of the lesson was offered, not a question asked to awaken thought in the mind of the child.

I commenced teaching with less than a year's practice in the Turkish language. You will readily comprehend that the thorough drill in the "common branches," which the Normal School affords, was invaluable to me, leaving me nothing to think of but the *new words* I should use. So, too, the Normal system of studying a given *subject* (as Geography, Physiology, etc.), instead of committing to memory a *book* on that subject, and the practice of giving frequent "teaching exercises" on the subjects under consideration, and the training of the hand to ready use in illustrating on the blackboard, was of the greatest practical service to me, left, as I was, to depend in a great measure upon oral instruction for my pupils. Every idea on the "Theory and Practice of Teaching," derived from D. P. Page (with many from other sources), has been drilled into our graduating classes, brought out conspicuously in our public examinations, and urged upon pastors and school committees in more private sessions, until there has been a very thorough change in the practice even of the *old settled male teachers*, to say nothing of the *new régime* which our graduates introduce wherever they go.

I will tell you of one school.

At Hassan Beyli, a church was formed in 1867, and since then a school has been taught one year by the pastor's oldest daughter, and two years by his second daughter; both graduates of the Aintab Seminary. As a result of these three years' labor, a class of five have graduated from the middle school course, having completed their books on Arithmetic, Geography, Physiology, and Grammar, and obtained considerable knowledge of Armenian. They read Turkish both in the Armenian and Arabic character, and have had excellent Bible lessons. The younger scholars have also made good progress. They have no school-house, and so have met under a tree, in a booth, or, in winter, in a shed-like room, where the only attraction is a huge fire-place. The examination was held under a large walnut tree. A few boards had been arranged against the fence, and the blackboards and maps hung on them. In front of these was a long bench, on which sat fifteen girls and eight boys neatly dressed; a company of eighty or ninety spectators sat on the mats. Near the trunk of the tree was the teacher's table, with its vases of flowers, and its bell. As for the rest, imagine any well-trained American school, perfect obedience to the little bell, good recitations, excellent compositions, lively dialogues and singing. I think I have not had such a *satisfied* feeling since I have been in Turkey. All the graduating class, three girls and two boys, expect to come to Aintab for further training.

My associates, having usually been from Mt. Holyoke, have brought cer-

tain qualifications not furnished by the Normal, at least during my pupilage. Among these I would note *familiarity with the method of conducting a mutual help domestic department*, and chiefly a *systematic knowledge of the Bible*, — geographical, chronological, and topical. As Bible lessons form an important part of our instruction, such a school training is exceedingly valuable to the teachers; and I cannot forbear adding that I have found no school exercise more profitable to our pupils *intellectually* than the Bible lessons, while spiritually they have led many out of darkness into light.

The teachers at present in charge of Aintab Seminary are Miss Shattuck, of our own Alumni, and Miss Pierce, of the Salem Normal School. They are yet struggling with the difficulties of an unknown tongue, — hands tied, as it were, while they see an unlimited amount of work pressing upon them from every side. I ask for them a loving remembrance and a hearty response to their oft-repeated request "Pray for us."

Among all who gather on the 10th, will there not be found one willing to go beyond the bounds of enlightened America to carry to the ignorant that which has so blessed our own country?

Pardon me if I repeat a word from one of *our* teachers of sixteen years ago. It has done me much good, and lives and brings forth fruit still. "However uninteresting some of your pupils may appear to others, they can never be so to you if you remember that they are children of the one Father, souls for whom the one Saviour died."

Ah! this is what we teachers need — a *baptism of love*, an appreciation of the worth of every human soul, and the possibilities that lie before it, that we may love our pupils with something of the Father's love, and labor for them as the dear Saviour labored.

MYRA A. PROCTOR.

FRAMINGHAM NORMAL SCHOOL.

[Read at the meeting of the Framingham Normal School, July 16, 1874.]

WHEN your Committee of Arrangements asked me to say something to you to-day, I said "Yes," because I had not the heart to say "No." Framingham, and the school there, made for so many years my home, that Framingham itself would have a certain right. I spent, as pupil and teacher, nearly five years under the shade of its elms and maples, and the last sound of which I was conscious every night was the sighing of the wind through the tall white pines on the school hill. The whole region was my treasury. I knew where the earliest Violets grew in the cemetery, and the sloping field near the lake where the trailing Arbutus was to be found under the pine leaves. I knew the home of the clear-eyed pedate Violets, that we gathered by handfuls when the apple-trees were blooming, and I could tell where the delicate Uvularia and even the aristocratic Arethusa were to be found. The fragrant black birch was to be watched for its tasseled blossom, on the triangle of green just at the right as we turned up the hill road, and the diacious ash trees grew tall and green just in front of a certain farm-house gate on the Wayland road. On the curving edge of the road, near the little bridge, I learned the difference between the white, and black, and scarlet oaks, and when the autumn dyed the familiar trees, I knew just where to go for the tree whose leaves were invariably yellow with a narrow stripe of scarlet, and for those in which the crimson, in spots, flecked the green or the orange. The sugar maples on the common turned always yellow, and were a mass of sunshine stored up from the July midsummer weather.

For there is a kind of individuality in trees, especially in the maple, the most human of all, which each tree displays in its own peculiar way of turning, preserving that way for year after year. So even each tree in the place

grew to be an individual to me and to have a certain identity; and though, when I passed them in the Spring or Summer, they all seemed maples, I knew very well what individual traits they would show when the blossoming time was over, and the days had come that would reveal what use they had made of their sunlight.

Nor was the mental life which went on in the dear old town any the less rich and full. Between the day when I waited to know whether I was admitted, to the day when, as first assistant, I bade the hall good-by, and went a thousand miles away towards the South to continue the work whose foundations were laid in the Normal School, there lies a quietly regulated life from which all that has followed has drawn strength and purpose.

When I entered, the school had just been transplanted from West Newton, and was not yet acclimated in its new soil. The strong and tender care which had guarded its first growth still lingered about it, and Father Pierce's quiet face was sometimes seen, even then, at its graduations. The firm and steady forecasting will and the clear wise judgment of the man who stood then at its head, however, could not fail to impress itself upon every one in the school; and the small but devoted corps of assistants, working in thorough harmony, laid a basis for success, in giving to the school a definite unity, which has never been lost through all these years between, either in the school itself, or in those who have gone out, year by year, from its care and guidance.

If circumstances made the school then smaller in numbers than was hoped or desired, it has had a hold upon those who have gone out from it, South, North, East, and West, whose strength no words can adequately measure; and therefore is it that no graduate has a right to withhold any help which may be asked for on an occasion like this.

And yet as I seek for some appropriate word to send you to-day, I can do no better than to try to teach over again in other words, stronger I hope than those in which I said it so many years ago in our class poem, the lesson of *earnestness* in life and work.

For to the earnestness, in its early doubtful times, of Horace Mann, Cyrus Pierce, and Samuel J. May, of Miss Tilden, Miss Lincoln, Miss Pennell, and many more, the school owes its existence; to the earnestness of Eben S. Stearns, Miss Crocker, Miss Greeley, and many more, it owes its shaping, training, and development; and to the earnestness surely evolved under these and its after influences, all those graduates who have been successful in any line of life, owe their own success.

There is a question which a friend of mine always puts in inquiring as to the probable success of any worker or of any new enterprise, which goes straight to the point here. It is this, "*Is he ready to die for it?*" When that question can be answered in the affirmative of any one who undertakes a new work, the success is assured. And in this spirit of self devotion every woman must approach her work, whatever it may be.

I do not mean that she *should* die for it; on the contrary, she should be determined to *live* for it. And it is for this very reason that she should resolutely demand and enforce the thorough, steady, and persistent mental activity which alone can keep all her physical powers in fullest vigor, and the glow of health on her cheeks. Nothing makes a woman grow old so fast as narrow and shallow thinking; while nothing keeps her young and fresh so long as broad and deep mental activity. And in these days, nothing is more important than that we who are hard workers should keep ourselves strong and well.

I do not assert, as I said, that a woman should mean to die for her work, but that she should begin it with this thought, "Of this, my work, I *will* make a success. I will count everything else secondary to it, nor will I consider any sacrifice too great to make for its sake."

When every woman of us shall undertake and pursue her work in this

spirit, we shall be no more, as we are often now, sadly forced to acknowledge that opportunities want women more than women want opportunities.

The trouble is not that opportunities do not come, but that we are not ready for them when they do come, and we are not so ready, simply and only for the reason that we have not done the easy first work that was given us with all our might.

If you are not willing to teach *with your might* for two hundred dollars a year, — provided you are willing to accept the position, — then don't teach at all, for you will never get two thousand under those circumstances. If you do the work *at all*, do it as far as in you lies without grudging, and without reservation. Be *willing* "to die for it" if need be, and the Framingham Normal School shall yet be more widely honored than she is to-day in the influences which she shall send out.

ANNA C. BRACKETT.

A POEM.

[Written for the Alumni Meeting of the State Normal School at Framingham, July 10, 1874.]

ACROSS the gentle slope of low-walled fields
Blows up the cool west wind to fan my brow,
And all the beauty that the landscape yields
Is borne upon its wings to bless me now; —
The belting grove, the blue o'erarching sky,
Teeming with life and joy or e'er the Summer die.

The circling swallow intersects the air
With arc on arc, cleaving the passive blue,
Or swooping round the meadow cuts his share,
The green, rock-islanded declension through;
Then straight into the sky he steers his way,
The music of his flight tuning the happy day.

And myriad drowsy noises soothe mine ear, —
The locust rasping still his busy, restless wing,
The rustling corn, or whirring loom more near,
Or on the fir-tree spire a bird may sing; —
Glad pulse in nature's seething, tidal voice,
It knocks at my heart's door and bids my soul rejoice!

So rides full high the summer of my life!
Its heavy hum of work, — its fields of bloom, —
Its odorous winds with hundred perfumes rife,
Its many-voiced joy, — its tempest's gloom, —
All various hues, commingling light and shade,
The changing cloud and shine harmoniously inlaid!

And while this noon of life hangs o'er my way,
In press of duties, 'neath meridian sun,
I pause to rest and would its ardor stay, —
Look back to where — the labor scarce begun —
The Spring-time fair in hazy beauty rose,
Recall its singing birds, its visions bright disclose.

Like you, I stood upon the threshold stone
In earnest posture; forward, eager gaze
I cast, while through the golden vista shone
Alluring beauty — light of hope, whose rays
Flush wide the path of life to youthful eyes;
Its fields unfading green, — unclouded blue its skies!

Others may speak of girlhood's careless joy,
Its wayward moods, coquettish wiles and pranks,
Its shallow fascinations for the toy
Of soberer manhood's pastime; little thanks
They win who seek to deepen its intent,
Enlarge its scope and aim, — say true what girlhood meant.

I know with you that in its playful mood
There hides a longing to be true and pure,
A wish for consecration; womanhood
Seems beautiful; good angels re-assure
The tender self-distrust, and by the door
Of opening life they promise courage evermore.

I know how fresh the air seems all about,
Elastic bounding pulse and buoyant heart,
And radiant eye all spectres put to rout,
And laughing lips defy care's sober art;
The cup of life is sparkling to the brim,
Hope swells its foaming crest, — jewels its silver rim!

And when, like you to-day, I stood between
Hands either way outstretched, to wave "good by"
To youth's bright-revel and with forward lean
To take the task God called me then to try,
I heard His voice within my deepest soul,
And glad I gave to Him my work, my way, the whole!

For all is His — not part; — your life's sweet spring
Through which His love has breathed in whisperings oft,
The while His grace perfumed its blossoming
And floated o'er it in a halo soft;
How can you but breathe back the incense sweet,
And all the joy of youth in song of praise repeat?

Before you, wait the truths you long to learn,
Such glorious lessons in God's book to read;
Or where the shining stars forever burn, —
Or where enticing Nature fain would lead
The secret treasures of her hoard to find
And quench the heaven-born thirst of the insatiate mind.

Why in the heart of girlhood should there wait
The keen desire to hear God's word of love,
Not only in responsive hearts elate
With dreams of bliss, but in His works, above,
Below, around, — where'er He speaks in tone
Of concord, — law and germ and growth, all, all His own?

And while in beauteous order He evolves
All phases fair, suggestions, germs and roots
Of being, — or all form resolves
Into its deathless elements, the fruits
Of circling Power-creative, — He feels still
Your single, conscious life, and bids you do His will.

He gives you these — His temples, you believe —
 Fresh healthful forms of beauty, soul-lit eyes,
 All avenues of knowledge, to receive
 Hints of Himself, to grow pure, good, and wise,
 To make your life his home, — keep integral
 His rhythmic, triune being, — body, mind, and soul.

Now, as you stand just watching on the verge
 Of holy womanhood, what fair ideal
 May from the Future's shadow-land emerge,
 Inspiring vision you must make all real!
 With girlhood's prophet eyes you see more clear
 Than ever spirit came to wizard or to seer.

Perhaps th' enraptured song of Dante stirs
 Your quick imagination, and you see
 His calm-browed, gold-haired Beatrice, — hers
 Such winning, gracious charms, the mystery
 Of love-divine enshrined in mortal guise, —
 All loveliness looks out from her celestial eyes!

Or, if too lofty Beatrice stand,
 In garments spotless on her radiant throne,
 You turn to one who offers you her hand
 In lazier wisdom, but with grace her own,
 The classic Portia of transparent mind,
 Gemming her keen, clear wit with mercy for her kind.

But there are names more honored and more dear,
 More vitally our own in history.
 Yearn we to follow in the noble sphere
 Of science, comprehending mystery,
 Interpreting the laws of vale and hill,
 Reading heaven's numbers right? — lo! Mary Somerville.

Or, when you hear God calling you by sign
 Of sympathy with lowly hearts in pain,
 To bear the cross with them and to resign
 All meed of social praise, all hope of gain,
 With Agnes Jones go search for Holy Grail,
 Tread in the sainted steps of Florence Nightingale.

Yet chiefly, O, be true to self and God!
 As you are gifted and as you are led,
 Unfold His gifts, follow His guiding word;
 So feed you others; so shall you be fed.
 The rose-bud blooms a rose; the lily's cup
 No other than its own pure fragrance offereth up.

And we, my sisters, who have come to speak
 One word of cheer and greeting to each other,
 However brief that word, however weak,
 'Tis sweet to hear and ask one fostering mother
 Who calls us with a voice of welcome now,
 To hang our votive laurel on her honored brow.

She lit within our hearts a deathless flame, —
 To love and seek the truth by every path.
 And now we come with pæans to her name, —
 Perchance with harvest or with aftermath, —
 To say how bright and how undimmed the way
 Which beckons us still on to truth's millennial day.

What stars have risen o'er our horizon-line!
 What clear, full planet-truths above us swung!
 Revealing science swept the heavens divine,
 And read their story with her silver tongue!
 For when the gathered dark did o'er them roll,
 God set His *bow* in th' cloud, how plain the seven-hued scroll!

See we so near across the sunny seas,
 With gentle outline of white, shining shore,
 Sad, consecrated isle of Penekese
 Waiting the teacher who will come no more?
 The lapsing wave sings low its soft refrain,
 "He who our secrets read, he ne'er will come again."

His life to Nature's inmost life so nigh,
 His all-absorbed, receptive, child-like heart,
 The ecstasy of rapture-kindled eye,
 Magnetic inspiration to impart,
 His reverent love, his calm, unuttered prayer,
 Each form and type of life his golden Altar-stair!

O, noble pattern of the teacher, he!
 From depth of soul and fervent zeal he taught;
 To hidden things the mirror he could be,
 To show what wondrous works the Master wrought.
 His eye of love saw nothing small or mean,
 Where the least finger-print or thought of God had been.

So stand the Teacher, high amid his time;
 Directing thought, uplifting all the race;
 Tracing the thread of histories sublime,
 Interpreting the signs of Nature's face;
 From arts of schools and rules of method free;
 By native force of soul true educator he!

His very presence breeds a noble trust;
 Within his sphere great-hearted love is born;
 All broods of narrow strife, self-seeking lust,
 Disperse like mists before a sunny morn.
 The glory of a shrine his looks express,
 Life, light, and utterance his priesthood high confess.

LOUISA P. HOPKINS.

INTELLIGENCE.

MISS ANNIE WELLS, daughter of Rev. M. H. Wells, of Waterford, will go to Wellington, South Africa, in September, where she takes the position of teacher in a Primary School established there last year.

CHARLES HOLT, of Dover, has been appointed principal of the High School at Montpelier, Vt.

RIEL, the Manitoba rebel, is at Suncook, the guest of Rev. Mr. Richer, formerly a missionary in the Northwest.

THE body of Miss Cross, the Gorham teacher who disappeared a few days ago, has been found in the Ammonoosuc River. She was partially insane, and her disorder was aggravated by trouble in her school.

THE graduates and pupils of the High School at West Springfield had a very pleasant reunion Wednesday evening, at the town hall. About one hundred pupils, the accumulation of five years' existence and experience, were present, with two of the five teachers, besides parents and friends.

THE committee on education have awarded the contract for building the school-house at Brightwood to D. A. Davis, for \$9,175, the highest bid being \$12,935. The building will be of brick, two stories in height, with a hall above, and below two school-rooms, each twenty-eight feet square. The work is to be done by the 1st of December.

THE Worcester Free Technical School graduated a class of seventeen, Wednesday, one of the students giving his attention to Chemistry, seven to Civil, and nine to Mechanical Engineering. Fifty apprentices have worked in the Washburn machine-shop, where the theoretical instruction is put into practice. These students have been instructed by ten practical machinists, and have aided in the construction of the engine lathe, adjustable drawing-stands, and other work.

RANDALL SPAULDING, a Yale graduate of 1870, who was for two years principal of the Rockville High School, and has spent the last year in Germany, has declined the appointment of tutor in Yale College, and accepted the position of principal of the High School in Montclair, N. J.

GEORGE S. CHANDLER, principal of the Franklin (N. H.) High School, has been elected to the principalship of the Chicopee Falls High School, *vice* H. C. Hollowell, resigned; and Miss Vila M. Barton, formerly of the Chicopee Centre High School, becomes assistant teacher in place of Miss Hollowell.

AT this late day Prof. Henry Smith contradicts the report that he has accepted the presidency of Middlebury College.

MR. L. WHITE, for the past five years principal of the New Salem (Mass.) Academy, and for the five years previous a teacher in the Wesleyan Academy at Wilbraham, Mass., has been secured as principal of the Methodist Seminary at Montpelier, which opens its fall term on the 26th. Joel Blake, of Greenfield, Mass., is steward.

EDWARD J. RUDDOCK, of Buckland, a recent graduate of Amherst College, has been engaged as principal of the High School at Greenfield.

H. A. BAILEY, of Marlboro', who has taught the High School at Montague for two years, has been re-engaged for another year.

F. A. WHITNEY, with twenty-eight years' experience as a teacher, has been engaged as principal of the Ashburnham High School.

THE full faculty of Wilbraham Academy was chosen by the prudential committee and the committee on teachers of the trustees, Monday, as promised at the recent election of Rev. Mr. Fellows, few changes being made in the old corps of teachers. John H. Pillsbury takes the place of Prof. Asa Boothby as instructor in Natural Science; the filling of the Mathematical Chair was left with the Committee on Teachers; Prof. Lamb continues director of the Commercial Department, and takes the Department of Drawing and Painting; Rev. Benjamin Gill is made adjunct professor in Latin, in Greek, and also librarian. Daniel J. Clark is in charge of the English Department: while Miss Mary Hill is made assistant. Otherwise, there is no change in the faculty from last term, with the exception of the other Assistant Teachers, who will be chosen by the Committee on Teachers as they are demanded.

CHARLES E. QUIMBY, son of Prof. Quimby of Dartmouth College, and a recent graduate of the institution, has been engaged to take charge of the Gardner High School.

HENRY WHITTEMORE, of Hopkinton, a Dartmouth graduate in '66, has been engaged as principal of the Westboro' High School.

GEN. BANKS' sister Susan has just resigned the position she has held for many years as first assistant in the Waltham High School.

R. B. LITTLE, graduate of the University of Vermont, in the last class, has been elected principal of the Classical Institute at Essex Centre.

WALTHAM. — *School Committee.* At a regular meeting of the School Board, the resignation of Miss C. Stearns, for the past ten years teacher in District School No. 6, was accepted, and Miss Maria L. Fisher was appointed to fill the vacancy. Mary E. Northup was appointed teacher of first intermediate class in North Grammar School.

G. S. CHANDLER, the recently appointed principal of the High School at Chicopee Falls, has declined the position to accept a tutorship in Bowdoin College, where he graduated in 1868. The vacancy has been filled by the engagement of a Mr. Lawton, of Lowell, a graduate of Yale College.

LUCIUS ALDRICH is to enlarge Fitchburg's High Street Grammar School building 11,235 dollars' worth.

MR. DUNHAM, who has had the superintendency of the North Adams schools for the past six years, is to have charge of the school system at Bennington, Vt.

J. F. ELLIOT, Esq., late teacher of Mathematics and Sciences in Lawrence Academy, Groton, has been elected principal of the High School at Winchendon, and has accepted.

MR. CHARLES F. RICE, of this city, has been elected to the position of tutor in Latin in Wesleyan University, at Middletown, and will accept.

VINCENT MOSES, principal of the Fairhaven High School, has resigned.

Books.

THE LITERARY READER. Typical selections from the best British and American authors, from Shakespeare to the Present Time. Chronologically arranged; with Biographical and Critical Sketches, and numerous notes. By George R. Cathcart. Published by Ivison, Blakeman, Taylor & Co.

The compiler of this book, as he tells us, did not intend to make a compendium of English Literature, but he has given us selections from the best writers, from Shakespeare to the present time, in chronological order, and accompanied them with such biographical and critical sketches as will render the book a good introduction to English literature.

There is no good reason why pupils should be kept reading the same pieces over and over, from one text-book. The reading exercise, with the exception of the elocutionary drill,—for which a very small book would afford ample variety,—might, even in our Grammar Schools, be made the means of storing the mind with much useful information, both liter-

ary and scientific. This book seems to be a step in the right direction. The selections are interesting, and characteristic of the authors, and perhaps enough to create, by the aid of a good teacher, a desire for more from the same sources.

THE INTERNATIONAL REVIEW. Published by A. S. Barnes & Co.

This magazine has been constantly increasing in interest and ability from the first. The article on Charles Sumner and International Peace is excellent, and shows that Mr. Sumner's support of the War of the Rebellion was not at all inconsistent with his peace principles.

OLD AND NEW for September is an excellent number.

THE ATLANTIC fully maintains its well-earned reputation.

LIPPINCOTT'S MONTHLY is certainly not inferior to any illustrated magazine in the country.

THE ST. NICHOLAS makes more young folks happy than all the confectioners.

THE POPULAR SCIENCE MONTHLY is the most interesting magazine, for one that contains so much information and "useful reading," that we have ever seen.

A MANUAL OF MEDIÆVAL AND MODERN HISTORY. By M. E. Thalheimer. Published by Wilson, Hinkle & Co., Cincinnati.

The study of Mediæval and Modern History deserves a more prominent place in our High Schools than it has yet occupied. The history of our own country is merely a branch broken from a common trunk, if studied without reference to contemporaneous European History; and the roots which give vitality and fruitage to the tree are hidden in the obscurity of the Dark and Mediæval ages. We have had, indeed, compends of History presenting the states of Europe in a series of separate Histories; but we have had no comprehensive view of Europe, as a whole, preserving, under all its seeming diversity, those principles of unity which are embodied in modern institutions, the development of which constitutes the essential element in History.

The author does not indeed claim to have given a philosophical History, with the larger generalization which might have been more interesting to the mature mind; but through a simple narration of events in a judicious manner, he has suggested such generalization. And this, we take it, is the true method of teaching. The facts of History must be first known; and fortunate is the student who learns the simple facts from one who in his own mind has such a view of the whole that he is able to narrate the facts in such a manner as to furnish a clew to their logical relation, and thus aid the immature mind in its generalizations. The "Recapitulations" at the end of the several sections will aid pupils greatly in fixing attention upon important events, while the "Review Questions," at the end of each Book, seem prepared with special reference to unity of effect. Then the twelve maps, copied from Spruner's New Historical Atlas, are indeed, as the author states, "an invaluable supplement to the text."

Taken as a whole, we know of nothing so well adapted, as a text-book in our High Schools, to the purpose for which this is intended.

The author, besides being master of

his subject, is evidently a first-class teacher, and his methods might be followed with good effect by compilers of text books in History for our elementary schools. We heartily recommend it to the attention of teachers.

BOOKS RECEIVED.

A GRAMMAR OF THE ENGLISH LANGUAGE, WITH AN ANALYSIS OF THE SENTENCE. By John S. Hart. Published by Eldredge & Brother, Phila.

LANGUAGE LESSONS FOR BEGINNERS. By John S. Hart. Published by Eldredge & Brother, Phila.

A BRIEF EXPOSITION OF THE CONSTITUTION OF THE UNITED STATES; for the use of schools and academies. By John S. Hart. Published by Eldredge & Brother, Phila.

THREE THOUSAND PRACTICE WORDS, with an Appendix, containing Rules for Spelling, Capitals, etc. By J. Willis Westlake. Published by Eldredge & Brother, Phila.

A JUNIOR CLASS HISTORY OF THE UNITED STATES, to which are added The Declaration of Independence, and the Constitution of the United States. Illustrated with maps, etc. By John J. Anderson. Published by Clark & Maynard.

ELEMENTS OF THE ENGLISH LANGUAGE. An Introduction to the study of Grammar and Composition. By Bernard Bigsby. Ginn Brothers, Publishers.

LANGUAGE LESSONS; An Introductory Grammar and Composition for Intermediate and Grammar grades. By Wm. Swinton. Published by Harper & Brothers.

TEACHERS' MANUAL FOR FREEHAND DRAWING IN PRIMARY SCHOOLS. By Prof. Walter Smith. Published by James R. Osgood & Co.

AN INTRODUCTION TO THE STUDY OF GENERAL BIOLOGY. By Thomas C. MacGinley. Published by G. P. Putnam's Sons.

A MANUAL OF METALLURGY. By Wm. Henry Greenwood. Published by G. P. Putnam's Sons.

MODEL FIRST READER. Sentence Method. By J. Russell Webb. Published by Geo. Sherwood & Co., Chicago.

PATTERSON'S COMMON SCHOOL SPELLER; Accompanied by an Exercise Book. Published by Sheldon & Co.

THE MASSACHUSETTS TEACHER.

[JOHN TETLOW, Editor for October.]

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✓ *WRITTEN EXAMINATIONS.*

It is quite unnecessary at the present day, especially in an article addressed to teachers, to attempt to show the utility of written examinations. This may safely be assumed to be universally admitted. Those teachers who make any pretension to thoroughness of work and intelligence of method, consider them an indispensable instrumentality ; and at regularly recurring intervals use them to test the quality of their own work and that of their pupils. This reliance on the evidence afforded by written examinations is not confined to any particular grade. The colleges use them as a means of regulating the admission of students to their courses of instruction, and, subsequently, of determining their qualifications for continuance in them ; while the secondary schools find these tests equally useful at every stage of advancement. To such an extent indeed do educators value written examinations, that, other things being equal, those schools are generally held to be the best organized in which they occur most frequently.

But, while there is general agreement as to the utility of these exercises, there is a wide diversity, in practice at least, in the appreciation of their true nature and purpose. For each teacher unconsciously expresses his own individuality in the questions he prepares, and these, in consequence, reflect the ends he proposes to attain by his instruction, and the methods by which he thinks them attainable. Indeed, to a person experienced in school econ-

omy a teacher can offer no clearer exposition of his theories and methods of instruction than the bare examination questions which he prepares for his classes. Accordingly, the authorities of the higher schools, wishing to convey as briefly and clearly as possible to those of the lower, their views as to the kind of preliminary training their students shall receive, announce in their catalogues that copies of recent admission papers will be sent on application to any teacher ; and instructors in the secondary schools, knowing that their professional standing depends on their success in meeting the requirements thus prescribed, eagerly avail themselves of this means of information. Not infrequently, too, the non-professional public, consulting these papers to see how far they reflect the just demands of society for the right education of its members, and failing to find there any sympathy with its convictions and aspirations, raises its voice in indignant remonstrance, and clamors for reform. No device which educators have employed for the dissemination of their views on educational questions have been productive of more good than the publication of examination papers ; and to no other agency are we entitled to look with greater confidence for the ultimate solution of the educational problems which now claim our attention. They provoke searching investigation and fair-minded discussion. They carry silent conviction with them, or arouse vigorous and successful protest. In either case they result in reform.

As, therefore, examination papers are so plainly stamped with the individuality of the examiner as clearly to reveal to those conversant with their subject-matter his educational methods, there are as many types of questions as there are schools of theorizers on the subjects to which they refer, or as there are degrees of clearness in the mental operations of those whose theories agree. First, there is the type called leading, which, by a dexterous use of phraseology, presses the laws of association into its service, and succeeds in eliciting correct answers to stupid questions from pupils equally stupid. Then there is the startling, or sensational question, picked up in some statistical nook or cranny, and deposited for safe keeping by the examiner in those brain cells which he devotes to explosive compounds. Again, there is the catch, or puzzling question, put with no intention of testing the comprehension of a principle, but, so far as there is any purpose, to

see who in the class is quickest at guessing rebuses and riddles. There is, too, the intelligent, comprehensive question, the answer to which no text-book supplies, illustrating several principles, and yet not pointing by its phraseology to any one of them. The student who has done his work, not only with diligence, but with intelligence also, can answer it readily and briefly, while the mere memorizer is simply appalled by it. But it is needless to extend this catalogue. Teachers will recognize in the foregoing descriptions some of the familiar forms, and can probably add to them from their own stores of personal experience.

The types of question which have been designated leading, startling, and puzzling, do comparatively little harm when confined to individual classes, for the classes subjected to such training may, under the operation of promotions, come under the influence of more intelligent teachers, whose instruction will neutralize its effects. But when a school or college of established reputation and widely extended influence introduces such questions into its papers, and refuses to admit students to its courses of instruction, unless, by a high percentage of correct answers, they give satisfactory evidence of having been under the influence of this species of mental disease, the mischief becomes serious. Such institutions, dictating thus the character of the instruction to be given in all the schools which feed them, and guiding the intellectual activity of whole communities, inflict untold evil on those whom they profess to benefit. They should never forget that their responsibilities are as grave as their opportunities are magnificent. They may become a source of blessing or of blight throughout the entire area of their influence. It is to be hoped that the officers in our higher institutions to whom the preparation of examination papers for admission is assigned, appreciate the importance of the task they assume. There is no part of their duties which they can so ill afford to perform carelessly as this.

In view of the wide diversity of opinion which exists as to the true nature and purpose of written examinations, it will be interesting to analyze two papers, differing widely in character, but relating to the same subject, given, the first in 1873, and the second in 1871, to candidates for admission, at two of our prominent higher institutions of learning. It will be noticed that the first professes to be an examination in *Grammar*, the second an exam-

ination in *English*. This difference of caption, however, serves to indicate the views of the two examiners as to the scope and province of the study designated, rather than to divide this into two distinct branches, and should not prevent us from considering that the two examinations were intended to be on the same department of study. Indeed the two captions may be viewed as parts of the examination papers themselves, and as typical illustrations of the differences they present.

“EXAMINATION OF CANDIDATES IN GRAMMAR, JUNE 6, 1873.

1. What is a compound personal pronoun? Give a list of these pronouns. What classes of pronouns are used as substantives, and what as adjectives?

2. Define transitive verb, irregular verb, participle, conjugation. Give all the tense endings; the person endings. From what verbs are the following participles made, respectively: Laid, shed, set?

3. State fully the rule for forming the possessive case of a noun in the plural number. What three ideas does the possessive case connect with the name of an object?

4. Explain the difference between a preposition and a conjunction. What is a conjunctive adverb? Give an example of the last. Compare the adverb *far*.

5. So I have, though it seems you did not observe it. Parse etymologically.”

ENTRANCE EXAMINATION IN ENGLISH, JUNE 5, 1871.

1. In the verses given out by dictation,

a. Parse *busily, highway, wore*.

b. Give all the prepositions — all the conjunctions.

2. Divide the lines into feet, and mark the accented syllables.

3. Give some account of your English studies at school. Give your own opinion as to your knowledge of English Grammar.

4. What English authors in prose or poetry are you really familiar with? What authors or parts of authors did you read in school?

5. Have you studied Rhetoric, and if so, in what manual? Have you studied Logic?

6. Have you studied Latin, and how far? Have you studied Greek?

10.* In what century did Wordsworth live? Milton, Lord Bacon?

Who wrote *Ivanhoe*? The *Canterbury Tales*?

. Let us note briefly the points of difference in these papers, and ascertain, if we can, what inferences they justify. The most obvious difference to be noted is, that the first is extremely limited in its range, while the second is almost unrestricted. In the first, there is not a single question that is not related to etymological parsing; answers to the first four questions, moreover, may be found ready to hand in almost all the popular text-books on English Grammar; and every candidate who had diligently memorized the definitions, rules, and lists in one of these, must have made a most excellent showing. The inference is irresistible that, in the opinion of the authorities of the institution from which this paper emanated, a thorough mastery of the definitions, rules, and lists contained in that part of an English grammar which treats of etymology is the true and only foundation of a rightly ordered course of literary study. The publication of these questions in the annual catalogue is a fair notice to teachers and candidates to govern themselves accordingly.

The second paper devotes one question only to etymological parsing, one to prosody, and the remainder to miscellaneous subjects. From the number and character of the questions strictly grammatical here presented, we infer that, in the opinion of the faculty of the second institution, only the leading features of etymology need receive attention; that prosody also should be studied, but that both together form only a part of the elementary knowledge required for a profitable course of literary study. Questions four and ten imply that candidates are expected to present themselves with a literary taste already partly formed, and with some positive knowledge of literature acquired through actual reading of the works of standard authors. To meet these requirements, schools must have libraries or access to libraries, and teachers must devise methods of bringing their pupils into

* The seventh, eighth, and ninth questions on this paper were in Geography, and as they took the place of a distinct paper on that subject, are, for the sake of simplicity, omitted here.

personal contact with literature. Question six recognizes the fact that one of the most interesting and profitable exercises in English — the study of definitions and synonymes through derivation — requires some knowledge of Latin and Greek, and extends to teachers who are ambitious to educate their scholars symmetrically as well as thoroughly, the encouraging assurance of sympathy and appreciation.

In justice to the institution which issued the first of the papers above quoted, it should be stated that the candidates were also required to "read aloud English prose in a standard work," and "to write a short, original letter." How far this added examination atones for the sins of omission and commission in the foregoing paper, each teacher will decide for himself. In our judgment no atonement is possible.

But dismissing, for the present, the *matter* contained in these papers, in other words, assuming the two kinds of knowledge they call for to be equally valuable, let us examine their *manner*, *i. e.* the method by which they seek to arrive at the knowledge of the pupil. For when once the subject-matter for study has been determined, there is a right way and a wrong way of teaching it; and, if any of these questions are badly prepared, the school from which they came is, in so far, giving aid and encouragement to poor teaching.

Now, in teaching any subject, the instructor should aim to make it, not only a means of mental discipline, but an acquisition of positive value. He should then secure to the pupil not only a thorough comprehension of its principles, but facility in their application also. For example, in English grammar the pupil should indeed be able to define a compound personal pronoun, a transitive verb, a participle, a preposition, and a conjunction, as the first of the above papers requires him to do; but he should also be able to do what is of more value than this. He should have tested his definitions so many times by concrete examples, both in the writings of others, and in his own written work, as to be able to rank any new word, whether of obvious or obscure relation, under its appropriate head; and, moreover, to illustrate these parts of speech in sentences of his own constructing. If this is the work of the teacher, the obvious duty of the examiner is to ascertain how far the work has been successfully accom-

plished, and, in doing so, to frame questions adapted to this end. This paper would have been improved then in method, if the examiner, instead of asking for definitions of a compound personal pronoun, a transitive verb, a participle, etc., had put his question in this form: "Write five sentences illustrating, in succession, a compound personal pronoun, a transitive verb, an irregular verb, a participle, and a conjunction; underline the illustration in each case, and show that it conforms to the definition of the part of speech which it illustrates."

Again, the examiner asks in the same paper, "What three ideas does the possessive case connect with the name of an object?" Immediately the boy who has been trained in parsing recalls the phraseology of the rule for the possessive: "A noun or pronoun limiting the meaning of another noun or pronoun by denoting possession, origin, or fitness, is put in the possessive case." Accordingly he writes, "Possession, origin, and fitness," and is credited with a perfect answer; and yet, what teacher does not know that such an answer would, in nine cases out of ten, be the result of verbal memory merely? If the candidates had been directed to illustrate in separate sentences the three ideas which the possessive case connects with the name of the object, a large proportion of the trained parsers would have utterly failed.

"State fully," says the examiner again, "the rule for forming the possessive case of a noun in the plural number." Here, too, the verbal memorizer, recalling with exactness the page, and the position on the page, of the rule in question, quotes it without omitting a syllable or misplacing a word. The same candidate would certainly have been less successful in his answer if the question had read thus: "Write sentences illustrating the possessive plural of the words *attorney*, *day*, *princess*, *woman*, *son-in-law*; also from these sentences construct others which shall express the same thought without possessives."

The difference between the original and the amended forms in the questions above criticised may be briefly stated thus: The former test the ability of the student to reproduce the phraseology of *text committed to memory*; the latter, his ability to *apply* the knowledge gained of *principles studied*. That the former have no place in education, while the latter are indispensable to it, will hardly be questioned.

Turning now to the second paper for a moment, let us see to what criticisms, if any, it is amenable. Questions one and two, like question five in the previous paper, are properly put, and, like that also, have to do with matter which, in elementary instruction in English, should certainly not be slighted. Questions three and four are excellent, though they are not satisfactorily supplemented by question ten. The latter, it is true, indicates to the teacher the class of authors with which the examiners would like to have future candidates made familiar ; but in doing so, it communicates information which would more appropriately be conveyed among the requisites for admission in the annual circular. Questions five and six are so framed as to elicit little more than affirmative or negative answers, and might, it would seem, have been almost as well omitted as introduced.

A comparison of two such papers as these, if instituted fifteen years ago, would probably have resulted favorably to the first. At the present time, indeed, it may possibly find vigorous defenders. But we are inclined to think that the second more nearly represents the best recent thought on the subject. Thinking persons get impatient nowadays when they hear glib etymological parsing from boys and girls who receive no instruction in writing and speaking English, and who have obtained no acquaintance, through reading, with the best models of composition. If we were asked to indicate the subjects best adapted to secure the end which an elementary course in English is designed to serve, viz. the acquisition of fluency and correctness in writing and speaking the English language, we should enumerate the following, none of which, it seems to us, can safely be neglected: Reading, Spelling, Elocution, Punctuation, Use of Capitals, Definition and Derivation of Words, Etymological Parsing, Analysis of Sentences, Recitation from Memory of Choice Selections, Explanation of Allusions, whether Biographical, Historical, or Mythological, in passages critically examined, the simple Figures of Etymology, Syntax, and Rhetoric, the Laws of Versification, Correction of False Syntax, and Written Composition. The passages selected for critical examination should be choice, but simple. Books, and passages from books, belonging to the standard English literature, and adapted to interest the pupil and cultivate a pure literary taste, should be

recommended for private reading, and written abstracts of their contents required. Frequently recurring rhetorical figures should be explained, and the characteristics of style produced by them noted. Errors in punctuation, in the forms and uses of words, and in the grammatical structure of sentences, should be corrected; and so much of theoretical grammar as is necessary for the appreciation of these corrections, should be taught.

We have thus indicated three important subjects, neither of which receives recognition in the foregoing papers, viz. the correction of false syntax, the study of the simpler figures of speech, and the occasional recitation of choice selections. The following questions, taken from examination papers given by the teacher of English grammar in our own school, suggest themselves in this connection as a suitable means of supplying the deficiencies above noted:—

1. Correct the following expressions, and give reasons for your corrections: I have just read "Tyndall's Forms of Water," which are certainly very interesting. It is I that is wrong, Sheridan was the last of his soldiers to leave the field. No man in the world has, or will be perfectly happy. O that this dry weather was over, and the blessed rain was falling! I took it to be she. Be careful who you trust. His expression sounded harshly.

2. Point out and explain the figures of etymology, syntax, or rhetoric in the following quotations:—

"The ling'ring star — 't was in the west."

"And Freedom shrieked when Kosciuszko fell."

"In peace, children bury their parents; in war, parents bury their children."

3. From what poems are the following extracts taken:—

"Why do those cliffs of shadowy tint appear
More sweet than all the landscape smiling near?
'T is distance lends enchantment to the view,
And robes the mountain in its azure hue."

"Ah me! the laurelled wreath that murder rears,
Blood-nursed, and watered by the widow's tears,
Seems not so foul, so tainted, and so dread,
As waves the night shade round the Sceptic's head."

"'T is the sunset of life gives me mystical lore,
And coming events cast their shadows before."

But it may be objected, while English grammar readily admits of a departure from the text-book in the preparation of examination questions, other subjects are much less easily managed. A glance at the following extracts from papers on various subjects will show that even those studies which deal with abstract reasoning, and those which present, for the most part, only statements of fact, may be made to yield abundant material for the kind of examination advocated in this article:—

1. *Geometry*.—Given a pentagon $a b c d e$, in which the side $a b$ is 5, the side $b c$ 11, and the area 29. It is required to find the side $b' c'$, and the area, of another pentagon $a' b' c' d' e'$, similar to the first, in which $a' b'$ equals 7; also to demonstrate the proposition on which the solution depends.

2. *Physics*.—A ray of light starts from a certain point and encounters successively a plane, a convex and a concave mirror, by each of which it is reflected; it then passes in succession through a plate of glass, a concave lens, and a convex lens. Describe the course of the ray and illustrate by a diagram.

3. *Astronomy*.—A disk six inches in diameter held $18\frac{1}{2}$ yards from the eye will cover the disk of the moon; what would be the diameter of a disk which would cover it when held at a distance of $27\frac{3}{4}$ yards? Compute by means of the latter the diameter of the moon in miles and its bulk in terms of the earth.

4. *Geology*.—A considerable portion of the surface of an elevated plateau has sunk so as to form a deep ravine. A geologist, on examining the strata laid bare on the sides of the ravine, makes discoveries as follows: In the lowest of the exposed strata he finds a portion of the skeleton of a reindeer; in a higher, limestone containing marine shells; still higher, the tooth of a wolf. Write out the past history of this locality, explaining and justifying all the inferences you draw.

In written examinations, then, whether for determining the qualifications of candidates for promotion, or for ascertaining the degree of proficiency attained at any stage in a school course, the *principles studied*, not the *text committed to memory*, should be made the test of excellence. So far as the nature of the subject taught admits, no question should be taken from the text-book used. The mark given should measure the *intelligence* more than the *diligence* of the pupil's work. The daily recitations, the subse-

quent reviews, and the final examinations, furnish each an indispensable element in the educating process ; and each should be so managed as to supply the deficiencies of the other two. The careful and minute examination of details which must form a part of the daily recitations, renders this portion of the work somewhat fragmentary, and prevents the student from seeing clearly the relation of the parts to the whole ; whereas the review, by bringing into proper connection and relationship the previously disconnected parts, enables him to survey the subject as a whole, with the parts in due subordination. The examination which follows both should be a repetition of neither, but should force him, during its continuance, to weigh, to compare, and to judge, using the two kinds of knowledge which he has acquired as materials.

J. T.

*THE RHYTHMIC-MUSICAL THEORY OF GREEK
VERSE.**



WE doubt whether much resemblance in nerve-structure would be found between the modern American and the ancient Greek. The whole environment has changed. We need not adjust our conduct to past circumstances. The situation is no longer seen, and but faintly imagined. Even the scanty data by which the present re-thinks the past, are inaccessible or unavailable to the most. A few heaps of ruins, fragments of statues, scattered coins and gems, bits of pottery, a wheelbarrow load of manuscripts, the copies of copies of copies, not many antedating the tenth century, all more or less defaced, over-scribbled, perhaps, by an after age, needing microscope and chemicals to be read, without distinction in size of letters, without punctuation, without accents or breathings, with words unspaced and abbreviated, filled with falsehoods and contradictions, — from such materials we rebuild the past. With what success?

One question only concerns us here: How are the vocal utterances of the Greeks reproduced in America? We must know where we shall hear them. There are occasional Greek declama-

*J. H. H. Schmidt. — *Die Kunstformen der griechischen Poesie und ihre Bedeutung.* 1868-72. *Leitfaden in der Rhythmik und Metrik.* 1869.

tions or orations in our schools. In the class-rooms of our academies and colleges there is sometimes read a scrap of prose or verse ; we certainly do not care to listen to the repetition of paradigms. But what sounds shall we hear ? Perhaps the English pronunciation of the letters ; it may be that of the modern Greeks ; in another place that of some other European nation ; elsewhere a confusion of all these ; often, however, an approach to what may be called the Restored Ancient Pronunciation, and with this we shall be more content.

The quantification, however, will leave much to desire. We observe no difference between $\tau\acute{\alpha}\sigma\sigma\epsilon$ and $\pi\rho\tilde{\alpha}\sigma\sigma\epsilon$, between $\lambda\acute{\omega}\omega$ and $\lambda\acute{\omega}\sigma\omega$, and that principle of prosody, deducible from the nature of articulation, and confirmed by several phenomena in the ancient languages, that a syllable ending in a consonant is long, we find to be as utterly ignored in our schools as in the elaborate experiments in metre of Ellis and Tennyson. To render these imitations less imperfect, the grouping of letters in English must be violently changed, and made to conform to what was probably the ancient method. To say $M\tilde{\eta}\nu\iota-\nu$ $\nu\acute{\epsilon}$ is at variance with our past practice, but will have to be adopted if it was the usage of the Greeks in prose and verse. It is doubtful whether any admiration of the ancient metre, or conviction of the possibility of reviving them in English, could make one endure "invento-ro-fharmonies." In truth, as things are, the pride of accuracy in these matters is absurd. At an English school, where all of the vowels and most of the consonants were systematically mispronounced and misgrouped, where the length or shortness of a vowel was only contemplated when it stood in the penult of a word of more than two syllables ; where doubts whether "accent a long penult" meant "emphasize it" had not yet penetrated, denunciations as for heinous sin were visited upon the luckless wight who "made a false quantity," as was curiously named the failure to place the stress of voice where the rules of the school, not the laws of the Latin language, required it to fall. And, O strictest of pedagogues, when your Primus asks you the quantity of *a* in *salio*, and you reply, "It is short, of course," is it not because you have in mind *Farre pio placant et saliente sale* ; or because your inward gaze is fixed on a page of the Gradus, and not at all because you have been in the habit of pronouncing

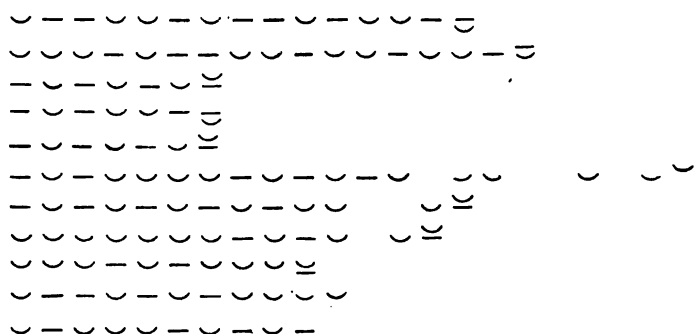
it short yourself? Observed rules would be unnecessary, and unobserved rules are worse than useless.

Perhaps it is different with the accent. You heard the recitation a moment ago; there was much talk of grave, acute, circumflex, of oxytone, perispome, etc. Another group of boys is at the blackboard; you observe how careful they are to write the accents, and what pains are taken to ensure correctness. But listen; they are beginning to read. Ah, you see, it is to discipline their minds that they remain ignorant of what they might have learned instead of this. Those painfully scrutinized marks are not regarded in practice at all. Wait, there is another boy—you are told he is fitting for Harvard—he is reading now a few lines of prose. He tramps over them and sets his voice down with all the weight of English emphasis on grave, acute, and circumflex alike. Let him turn to a page of Homer. You are now made aware that in almost the only Greek that is systematically read aloud,—verse, namely,—he makes no more account of the accent than did his predecessor. You rise and take your hat, repeating half consciously, *Wie nur dem Koff nicht alle Hoffnung schwindet*. The rest is drowned in the outcry of the class, who are now reciting in concert: “The accent of a long-vowelled penult before a short-vowelled ultima is circumflex.” Should it turn out after all that these marks are the signs of inflexion and not of emphasis, it might be thought worth while either to employ them as such, or else to neglect them altogether. If we do not know, or cannot express their real force, it is not plain what harm would be done by omitting them entirely from our editions. The Greeks appear to have got along without them until the second century before our era, and not to have made much use of them afterwards; and, whatever their meaning, it is at all events very doubtful whether the marks of Aristophanes represented the usage of the Homeric, or even that of a later period, to say nothing of the uncertainties that attend the determination of the accent of many a word, however definitely and courageously it may be marked in the lexicons. Our editions are certainly not made more beautiful or intelligible by scattering these characters over a page already covered with a print sufficiently wearying to the eye.

Even were there no testimony, however defective and conflict-

ing, to the contrary, who could believe that the Greeks had no accent in the English sense of the word? For, without accent, no rhythm; and rhythm is the common basis of music and verse. Among rude tribes it is often the sole distinctive characteristic of music, and is its only appreciable element to many among ourselves; while on some instruments, the drum for instance, no other part can be rendered. We can thus admit its general prevalence without seeking, with many, to trace it to some source in mind or body; or, with others, to suppose it originated as a useful aid to the march or dance; or to follow the German metrician in educing it from the forms of space and time.

Hardly can we doubt, then, not only that the Greeks had accent, but that their poetry was accentual, especially as there is reason to think that much of it was accompanied by music, much of it was sung or chanted, and perhaps none of it recited otherwise than in a sort of recitative. It is often said that, in distinction from modern verse, the verse of the ancients was quantitative. More regard was indeed paid, in adapting the words to the rhythm, to the metrical nature of the syllables; but the assertion by no means holds in the sense in which it appears to be usually understood, that ancient versification was merely an arrangement of certain long and short syllables. For in the first place it was not at all the time occupied in pronouncing a syllable that was considered, but since in song, and Greek verse was intended to be sung, the vowel gains prominence, attention was directed to the vowel and such consonants as, *following* it, affected its enunciation. Thus, we find the first syllable of *σπλῆν* employed as short without exception, while *ev* is always long whenever the consonant cannot be carried over to the next word. The assonance of the Spanish ballads may perhaps illustrate a similar raising of the vowels above the general level of the words, and in the second place, if the ancient versification was merely quantitative, as the long-and-short theory regards it, what possible feature to admire can be found in the following metrical combinations? What conceivable principle can Pindar have followed in arranging them? To what purpose the labor of making strophe correspond to strophe, when no one could remember them for comparison?



And how would Horace have read ?

Maecenas, atavis edète regibus, etc? Boys are required to learn and say that it is the *Metrum Asclepiadeum Primum*, *μονόπυλλον, μονόστροπον*, consisting of a *versus Asclepiadeus minor*, and that this verse is a *versus choriambicus trimeter catalectus in pyrrhichium aut iambum*, with a basis, which in Horace is always a spondee, and with a cæsura after the first choriambus. According to this, the arrangement is as follows:—

$$- - | - \cup \cup - || - \cup \cup - | \cup \cup$$

Others will have it thus :

— — | — ∪ ∪ — | — ∪ ∪ | — ∪ ∪

But really what ground is there for one of these divisions more than for the other? Or why is our choice restricted to these two? Why not

$$-|- \cup | \cup - || - \cup | \cup - | \cup \equiv,$$

Or

$$- - | - \cup \cup | \quad || - \cup \cup | - \cup \cup,$$

Or, in short, any other of the many possible modes of separating the verse into "feet"?

How can one ever read, much more sing, verses of such disparate measures? Or are not the "feet" measures? A clumsy device perhaps for describing sequences of syllables. And how do those who see in $\pi\acute{o}\delta\epsilon\varsigma$ a hint that Greek verse in its origin was an accompaniment of dancing and marching, represent to themselves the early Hellenic saltation and progression? Darwinism

is not usually suspected in those addicted to the perusal of Greek tragedies.

What unity do such verses present? Only look at the choruses in different editions. The gardener's triumph is a shrub that bears leaves of every variety, — maple, cactus, palm, elm, fern, potato, etc., — *risum teneatis, amici*. In Woolsey's *Antigone*, p. 138, we find

$$966-976=977-987.$$

Verse 1. Logæed, dact. (3 dactyls, $1\frac{1}{2}$ trochees) with a tribrachie basis.

2. Dactyl. trimeter catalect. in dissyllabum, with basis followed by a cretic.

3. Choriamb, dimeter with basis.

And so it goes on through the whole, the strangest commixture of dactyls, trochees, choriamb, tribrachs, iambics, antispasts, etc. Why any Greek prose could not be broken down into similar lines and made into equally enjoyable choruses, as far as the form is concerned, we do not know that any one has ever satisfactorily explained.

Clearly, then, if there was no rhythm in Greek verse, there was very little order of any kind. It is not found in the recurrence of syllables, whether long or short, "accented" or "unaccented," rhymed or unrhymed; and we might well despair of bringing a *cosmos* out of the *chaos* of verses, if the hypothesis of a rhythmical structure did not harmonize the facts. This hypothesis follows naturally from assuming that ancient poetry was intended to be sung, and in its application leads us to conclude that the stress of voice in Greek fell by preference on the long syllables, and that, calling a short syllable the equivalent of an eighth note, the long syllable had usually the value of two, but might, in definite positions, have that of three, four, and rarely five eighths; sometimes, however, it could be employed with an eighth note, while the short admitted the fourth, and, at times, the sixteenth note. No further license was permitted, nor did the words ever become a mere vehicle for notes of any duration. Poet and composer were one, and music and verse were twin-born of the same sentiment that shaped the thought of the artist and guided the motions of the chorus.

If a definite system of rhythms can be exhibited ; if principles can be established for adapting the metre to the rhythm and realizing the rhythm in the words ; if the results shall not merely make a fair show on paper, but approve themselves to our ear, to our taste, and, traced to their consequences, shall disclose everywhere regularity and beauty ; shall suggest some idea of the nature of the music to which the words were sung, and afford some glimpse of the movements of the chorus in the accompanying dance ; shall reveal the meanings of the different forms, the harmony between the metrical schemes and the sense of the words, and shall accomplish all this without violence to the best authorized texts, without arbitrary rules, without subsidiary hypothesis, — must we not welcome such a system, if only as a relief from verbal substitutes for ignorance ; if only as a barrier against modern macaronics, hexameters, Sapphics, Galliambics, that our learned poets so much affect ; how much more then as in itself a manifestation of beauty, a source of delight, a type of excellence ?

Criteria for the rhythmical constitution of a given text are found in the sum total of the metrical indications, the possible punctuation, the ending of words, pauses, the *syllaba anceps*, the hiatus, the possibility of equalizing the measures, symmetry of structure and correspondence of parts, the sense of the passage, and many other positive characteristics, while negatively the legitimacy of the hypothesis is attested by its inextensibility to prose.

Let us now proceed to exemplify the nature of the rhythmic-musical theory in its application to the more frequent forms of verse, merely premising that a bar shows that the next note is accented ; that by bars a rhythm is divided into equal parts, called measures ; that an initial, unaccented portion of a rhythm, necessarily shorter than a measure, is named *anacrusis* ; that the *accented* part of a measure is styled thesis, the *unaccented* part arsis. Thus, in the following from Swinburne's "Atalanta," we have four alternately-corresponding verses of four measures each :—

" When the | hounds of | spring are on | winter's | traces,
 The | mother of | months in | meadow or | plain
 | Fills the | shadows and | windy | places
 With | lisp of | leaves and | ripple of | rain."

A dactyl is defined to be a $\frac{3}{4}$ measure, with weak secondary accent. The definition, it will be observed, is purely rhythmical. In music the measure might be filled out by a variety of notes. How can it be manifested by the syllables of the Greek language? With regard to length alone, the most obvious combinations are the following:—

1. — —; 2. — ◡ ◡; 3. ◡ — ◡; 4. ◡ ◡ ◡ ◡; 5. ◡ ◡ —.

The third, fourth, and fifth are excluded by the principle that the accent falls on a long syllable. The first comes in conflict with the requirement that the secondary accent should be weak; for, if the arsis as well as the thesis should consist of a long syllable, it is plain that the inequality between the accents of the two parts would be much less than if the former were made up of two shorts. Still, when the sequence *long-short-short* occurs with sufficient frequency to indicate clearly the nature of the measure, the grouping *long-long* is admissible, though we must guard ourselves against calling it a spondee. The spondee in this system is a $\frac{1}{2}$ measure with strong secondary accent. Of course the combination of syllables by which it would be realized is *long-long*, though *long-short-short* and even other sets are allowed. Frequency of association has transferred the name that pertains to the measure in the rhythm to a mere succession of syllables; but, as it is desirable to have some means of designating the latter, we might employ the terms metre-spondee and metre-dactyl in distinction from the rhythm-spondee and rhythm-dactyl as above defined.

The measures of a composition do not simply follow one another without distinction between them, but are segregated into groups called phrases. In dactyls a phrase seems never to have exceeded five measures, and even such a group was usually too heavy to sustain its own weight, too long to be apprehended as a whole, and accordingly broke up into parts. These parts became in their turn phrases, the whole now receiving the name of verse. Of course the demarcation of verse from verse, as being groups of groups, must be more distinct than that of phrase from phrase. Thus in the rhythm we are about to examine, the verses are prevented from running together into a formless whole by the peculiar constitution of the penultimate and final measures.

A dactylic hexameter consists, as the name implies, of six dactylic measures, and, as it exceeds the possible limits of a single phrase, falls apart into two phrases, each containing the same number of accents and related to each other by the cæsura, the nature of which is to be presently described. When two phrases are united in a verse, either the former will end with a full measure, in which case the second begins with an accent; or the former will end *in* a measure, and then the latter will begin with an unaccented syllable of this measure, its arsis forming the anacrusis of the second phrase. These two relations are called respectively diæresis and cæsura. *Lehrs* has sought to show that such is the nature of the rhythm in the hexameter as to require the cæsura to divide it into two parts of three accents each, even when no word ends in the third measure. Many, however, hold that there are hexameters of three parts with two accents each and of two parts with four accents in the former, and two in the latter (the so-called Bucolic cæsura; better, diæresis); and it is claimed that each kind has an appropriate function. Whatever may be said of this, there exists a distinct form of the hexameter, of frequent occurrence, in which the third measure is filled out by the prolongation of one long syllable so as to give it the value of a half-note, and in which the sixth measure consists likewise of a single syllable, either prolonged to the requisite length or followed by the pause, or rest, which is only allowable at the end of a verse. This is the Elegiac Hexameter, for it is better to discontinue the use of the name by which this verse is commonly known. Few will seek to establish more distinct varieties of the Greek hexameter than we have mentioned, or will regard the sixteen cæsuras of Hermann as of more importance than would be a classification of the lines according to their initial letters.

Much ingenuity has been exercised in justifying assumed differences of expression, based on the relative proportion in the verse of metric dactyls and spondees. But, as all measures are of the same length, whatever the contents, it is doubtful whether Homer, at least, attaches any importance to these distinctions. With the Roman poets it may be different, if Schmidt's view of the Latin hexameter is correct. It differs, according to him, from the Greek, in having the measures made up of what are called Cyclic Dactyls and Irrational Trochees; in a word, it is to

be read not in $\frac{4}{8}$ but in $\frac{3}{8}$ time. In the Cyclic Dactyl, the long has the duration of a dotted eighth note, the first short diminishing to the value of a sixteenth note, while the second short with its usual time completes the measure. The second long of the Irrational Trochee is equivalent to a short, or nearly so ; for it is of course understood that exact mathematical relations do not obtain here.

The nature of the Greek metres might be made further evident by considering, as, with the requisite space, we had intended, the question of their revival in English. It is, however, time to close, though we cannot refrain from indicating, for the better satisfaction of our readers, how the rhythmic musical theory would divide the already quoted verse of Horace. The old practice was indeed better than the theory ; and, separate it as might the metricians, and even Horace himself, into choriambes,—that curious Greek measure in $\frac{3}{4}$ time, of infrequent occurrence and expressive of extreme indignation or abhorrence,—it is doubtful whether they read, recited, declaimed, or sung the verse, otherwise than in $\frac{3}{8}$ time, as exhibited in the following scheme, in which no measure is introduced that is not readily intelligible from what has already been stated. It will be seen, too, that any other division either destroys the symmetry of the line, or requires a short syllable to be accented: Maece | nas ata - | vis || edite | regi - | bus. Maecene, sprung from a race, kings in an olden age.

A. I.

VERMONT DEPARTMENT.

H. T. FULLER, EDITOR.

J

THE CULTURE NEEDED BY THE TEACHER.

THROUGH all the ages, books, not men, have been the world's great teachers. A nation's literature is not more the measure of its culture than the means to it. Long before Lord Brougham made the discovery that the schoolmaster was abroad in the land, his lordship had sat reverently at the feet of these great silent teachers of the past. The writings of Socrates, of Plato, of Aristotle, were but the embalmment of their own living souls — treasured up on purpose to a life beyond life. I mean no disrespect to the great nobleman's schoolmaster, nor to these his successors of gentler mould who have shouldered him out of the race, — I mean, rather, that the teacher's work is less a work of education than a work preliminary and preparatory to it. The object of school, college, or university is, not so much to educate, as to teach us how we may educate ourselves. I mean no disparagement to the New England common school system, — planted in Christian faith, fostered and nurtured by the prayers of those sturdy souls who wrestled with the Almighty for the blessings which they have transmitted to us. With prophetic eye they saw in the dim future what we ought now to feel more deeply in its full fruition, that a representative government must rest upon the broad basis of intelligence and virtue, because the people is the government, and ignorance in them reaches in its leprous influence to every fibre and function of the state, stagnates the currents of health, palsies the right arm of labor, and pollutes the fountains of justice. But what force is there in arithmetic or geography or spelling to stimulate virtue or repress vice? One can hardly square his conduct by involution. Nor are the principles of grammar transfused with any moral element. It is not what is learned in the school that makes the intelligent and virtuous citizen. This simply fits us out with the necessary mental implements for the work we have to perform in life and for the pursuit of higher knowledge. Even in its best estate the school leaves the boundless realms of knowledge almost untouched and unexplored. It is not enough that our children are trained up in an ascending series of good schools. These but commence culture. They give some scraps of practical knowledge, some discipline, — they

do not furnish a generous and liberal culture. Haply they may create a taste for reading and a relish for mental pleasures ; then books come in to finish the work. These supplement the school. These diffuse that intelligence which is essential to the stability of free government. These, moreover, are not simply a means of education and culture. They are at once an arsenal and an armory. Books are weapons either for war or for self-defence, says Lord Lytton. And this truth was never more emphatically verified than when educated Germany was devastating with fire and sword ignorant, impotent France. In this great Franco-German war, God was writing in characters of blood, illumined by fire, all over the sunny plains of France, that the nations might read — the great fact that a people's strength and security depend upon the trained and well directed intelligence of its masses ; that moral and intellectual qualities in the nation, as in the individual, are the only elements of power ; and that a heartless, soulless, Godless civilization is utterly without stability. For the sake of their relation to the state, if for nothing more, we plead for the broadest culture for teachers. They stand at

“ The entry of the city ;
At the coming in at the doors.”

But, for the most part, those who teach, limited in their means and opportunities for preparation, often supporting themselves the while, are compelled to confine their studies exclusively to the branches required to be taught. Now to teach anything well, one must know much more than he is required to teach. Indeed, to know one thing well, one must know many other things. There is no position in life where one can utilize all his powers, all his acquirements, and all his accomplishments, as in teaching.

It is evident, then, that no high standard of excellence will be attained, unless there be some growth in the grace of teaching. As the world goes, teaching is not largely an educative process. After the first, about as much culture comes from it as from the conjugation of a verb, or repeating the multiplication table. Culture, if it comes at all, will come from something outside of the labor in the school-room ; from some premeditated and organized plan of reading and study. We must put ourselves to school to Literature. All her temples are open to us. She invites us to sit in her alcoves and gather wisdom and sweetness without money and without price. I wish we could feel more the duty and the utility of availing ourselves of all the opportunities for this which lie about us.

One might almost paraphrase the ununctious formula of the West-

minster divines, and say the chief end of man is to cultivate himself, without sin of omission or guilt of heterodoxy. Of course by such cultivation is meant here the development of all the faculties and capabilities with which we are endowed. And how better can one glorify and enjoy his Maker! Indeed, how else can he do this? Let me urge upon teachers the importance of some judicious and systematic plan of reading; some general and excursive foraging in those fields of literature where ripens the harvests of the thought of ages.

But happily for us, man is not all intellect. Every mental action is prompted and sustained by some emotion; and we cannot, if we would, separate the moral and emotional from the intellectual. The best intellectual culture is, therefore, impossible without the cultivation of the æsthetic and the moral faculties. We should not, therefore, confine our reading to that field of literature where is found only what in slang phrase has been termed "bread and butter knowledge." It is written, man shall not live by bread alone. And I ween had God not designed us to cultivate the imagination and æsthetic faculties, He would never have given them to us; for he has observed the strictest economy in all His creation. Nothing is thrown away. Browning says,

"Be sure God ne'er desires to waste the strength
He deigns impart."

And surely there comes no higher satisfaction to any man than from the consciousness that he is acting in concert with the Almighty. Instincts are said to be the finger-pointings of Providence. Have we no desire, no aspiration beyond the narrow scope of our work-day existence? Said Mr. Webster, had man been so made as to desire nothing, he would have wanted everything worth possessing. The material is always inferior, and in God's design subservient to the spiritual. He did not put us here merely to eat, drink, and sleep. He put us here to cultivate our higher faculties and to fit ourselves for more intimate communion with Him and those beings around Him which are made but little higher than the possibilities of humanity. To "get on" is needful; but, while getting on and having got on there is other and higher work to do. A living, while it must be the first, should be the least and lowest object of desire. It is but the foundation on which to build the graces, the beauties, and the crowning glory of life. We cannot guiltlessly sacrifice our immortal powers to our animal propensities.

"Thyself and thy belongings
Are not thine own; so prosper as to waste
Thyself upon thy virtues, they on thee."

Heaven doth with us as we with torches do,
Not light them for themselves; for, if our virtues
Did not go forth of us, 't were all alike,
As if we had them not. Spirits are not finely touched
But to fine issues; nor Nature ever lends
The smallest scruple of her excellence;
But, like a thrifty goddess, she determines
Herself the glory of a creditor,
Both thanks and use."

Our feelings and emotions as well as our intellects have their wants and their capabilities. They, no less than the other, are sources both of pleasure and power. It is the soul element which ranks man but little lower than the angels. The purely sensuous man is at best but a piece of "painted, aching clay." We must kindle the intellectual, the emotional, and the moral to make a Newton, a Shakespeare, or a Washington.

I know the tenacity with which the average American mind clings to what is called the practical view of education. Always too strong, the feeling has been intensified by the recent beneficent ministrations of physical science which has stepped to supplant brute force, and has taught us how to shift our burdens from our own shoulders upon the forces of nature. Nor is this to be wondered at; for think what the human brain acting through the mechanic arts has done towards relieving the burdens of humanity, even within our own memory. How much less time is consumed in supplying human wants; how to the necessities of life have been added the comforts, and to the comforts the luxuries. Who dares affirm that this has not come about in God's good time, for the very purpose that we may have leisure for cultivating other than the practical side of our humanity? Little wonder, however, that the man who earns his bread by the sweat of his brow should desire to approach education upon its practical side. But he often does not know that he is indebted to the very faculty deemed most useless for the lightening of his life's burdens and the securing of his material prosperity.

In the writings of Sir Benjamin Brodie, formerly President of the Royal Society, I find a glowing yet worthy tribute to one of the most suspected of the useless faculties. He calls the imagination that wonderful faculty which, left to ramble uncontrolled, leads us astray into the wilderness of perplexities and errors, to a land of mists and shadows, but which, properly controlled by cultivation and reflection, becomes the noblest attribute of man, the source of poetic genius, the instrument of discovery in science without the aid of which Newton could

never have invented fluxions, nor Davy have decomposed the earths and alkalis; nor would Columbus have found another Continent. Prof. Tyndall, in his address upon the scientific use of the imagination, says it is the faculty which lightens the darkness which surrounds the world of the senses. Newton's passage from a falling apple to a falling moon was at the outset only a leap of the imagination.

Pure intellectual culture has too great prominence in our systems of education. If we do not educate the head too much, at least we educate the heart too little. It is what enters the soul, which works in us and abides with us and becomes part and parcel of us. What enters the brain does not change the man. It is not the knowing of the fact, nor the understanding of the principle, which can change the relations between man and his Maker. It is the fresh, warm feelings and emotions, that have their glow from the heart, which can do this,—these draw us nearer to Heaven. *Feeling* is the man. It is this which makes us peculiar and gives us individuality. It is through the emotions that we attain the finest and deepest culture of our spiritual being. Twenty centuries ago a profound philosopher said "tragic poetry purifies our feelings through terror and pity"; but there are holier emotions than these,—those that kindle sublimer thoughts and work kindlier results.

I wish every teacher could be made to feel that he owes it to his pupils to bring them into personal contact with an æsthetic and moral culture in himself; for education in such matters as constitute refinement can only be imbibed from those who have refined tastes. It is a trite saying that practice is better than precept; or, "as is the mother so is the child," which Horace poetically expresses, "the mother's virtues in the daughters shine"; but it is true, and it is as true of the teacher as of the parent. It is what some teachers woefully forget, and some others seem never to have learned. It is accounted for, this sober discretion, this sweet temper, this kindly grace of spirit, and all else that rounds out the soul to fulness,—not altogether by hereditary transmission. It comes as much from that silent, unconscious tuition which cannot be restrained, which radiates from one's spiritual being. Such a character as Washington's was possible only under the tuition of such a mother as was Washington's; but hardly less could England have had such a Stanley, or many another like him, but for the moulding of Arnold of Rugby. Do we teachers have as broad and high an ideal of character as did Dr. Arnold? and, furthermore, do we labor as assiduously as did he to realize it both in our scholars and in ourselves?

R.

INTELLIGENCE.

CASTLETON. — The Seminary and Normal School opened Thursday, Sept. 3. Mr. E. J. Hyde is Principal of the Seminary; and the Normal School is under the immediate charge of Miss J. B. Bromley. The other teachers are R. E. Maranville, G. A. Mietzke (of vocal music), and Misses Laura E. Brown, F. S. Burt, and Ten Broeck.

DERBY Academy has about one hundred students.

GLOVER. — Orleans Liberal Institute is under charge of Mr. George Deland.

BURLINGTON. — The public schools of this city opened Sept. 7 with a good attendance. The High and Grammar Schools have very few vacant seats, and the attendance at the new buildings shows the urgent necessity that existed for them. The following is a list of teachers for the present year: Charles S. Halsey, Principal High School; Laura H. Brownell, Kittie Hagar, Louise A. Dennison, Assistants. Mrs. Jennie M. Wyatt, Principal Grammar School; Mary E. Wells, Helen C. Converse, Jennie M. Carter, Assistants. Mary B. Stiles, Principal Pine Street Intermediate; Sarah A. Pope, Katie Miller, Assistants. Alice V. Walker, Principal Pomeroy Intermediate; Alice S. Washburn, Assistant. Libbie M. Frink, Principal Adams Intermediate; Florence J. Beecher, Assistant. Mary E. Collins, Teacher North Street Intermediate. Eva E. Sallies, Principal Pine Street Primary; Florence Partridge, Nellie Townsend, Assistants. Amelia Brown, Principal Pomeroy Primary; Mary O. Woods, Assistant. Maria A. McWeeney, Principal Adams Primary; Anna Smith, Assistant. Carrie L. Kimball, Principal North Street Primary; Addie J. Taft, Assistant. Sara A. Enwright, Principal Falls School; Jennie Mathews, Assistant. Nettie B. George, Teacher North Avenue. Ruth A. Hodgkins, Teacher Ungraded School and temporary supply. Andrew J. Phillips, Teacher of Music in all the schools.

ST. ALBANS. — The following are the new teachers for the current year: S. W. Landon, A. B., Academic Department. Miss E. M. Benedict, Principal of Intermediate Department; Misses Ladd, Janes, and Currie, Assistants. In the Primary Department, Miss Gilson takes the place of Miss Perley. On Elm Street, the new Assistants are Miss Sarah Whitehead and Miss Ellen Haight.

LUDLOW. — The fall term of Black River Academy opened with one hundred and fifty students. Miss Mary Piece, who has ably filled the position of Preceptress in the Academy for the last three years, has been called to a position as Teacher of Mathematics and Latin in Monticello Seminary. Her place is filled by Miss K. A. Labaree, of Charlestown, N. H., who for several years has taught with much acceptance in Springfield, Vt.

MIDDLEBURY. — The College Term opened Thursday, Sept. 3, with a Freshmen Class of seventeen. Prof. Clark has charge of the Senior Class.

MONTPELIER.—The number of students in attendance at the Seminary is one hundred and fifteen. Principal White has entered upon his work, which, if properly seconded by the Trustees, promises success. J. Edward Miller, of South Hadley, Mass., has been elected Principal of the High School, vice E. W. Westgate.

BARRE.—The Fall Term of Goddard Seminary began Aug. 26. Number of students, eighty. Henry Priest is Principal; B. P. Sparrow, Teacher of Natural Science; and Miss A. A. Ballou, Preceptress.

Barre Academy has one hundred and thirty students, of whom sixty-five are in Latin. Dr. Spaulding is in the front rank of successful instructors.

SPRINGFIELD.—Miss Emma Preston takes charge of the Charlestown (N. H.) Grammar School. Her experience in Springfield and Windsor are guarantees of her success in her new position. The Springfield schools opened Sept. 1. Henry L. Slack remains in charge of High School.

RANDOLPH.—The Normal School began its year with one hundred and forty students.

ST. JOHNSBURY Academy begins its second year of work since its new buildings were ready for occupancy, with two hundred and twenty scholars. Two teachers have been added to the corps,—Edward D. Mason, a graduate of Dartmouth in 1872, and Miss Susie A. Holbrook, of the last class of the Academy. Miss Carrie C. Ross teaches a select school at Mercer, Pa., and Miss Alma I. Galbraith, also of the last class at the Academy, is teaching in the Intermediate School on Summer Street, St. Johnsbury.

RESIDENT EDITOR'S DEPARTMENT.

MR. EDITOR :

Give me a little space, please, not to reply to "H. F. H."—oh no, not that, but to account for some things which appear in his review of the paper I read before the meeting of superintendents last May. I say to account for *some* things, for other some seem to me unaccountable. I have not spent the intervening month since the rejoinder in caring for the dead and dying after such a charge ; but as there was intimation of more to come, and as I could form no possible idea of what it might be, I thought I would wait for the remainder.

I exceedingly dislike a controversy in print, and especially with as good a fellow as "H. F. H.," and I do not propose to engage in one. I wish merely to correct two or three impressions, and so account for a few things passed upon in his article.

When writing my paper, I had much less reference to "H. F. H." than he supposes. When I said in the first paragraph that "the query was raised whether children of the ages of those in our schools are capable of understanding arithmetic," also that "the fear was expressed that we were requiring more of them than they can perform," I had in mind a paper presented by another man. In what I said with reference to *time*, I had his remarks more in mind. In the part of my paper pertaining to "the ability of the children," I was not writing as to *his* position, and this may account for the fact that I "both mis-stated it and understated it,"—that is, I *was not stating* it. It seems to be another instance of "the wrong boy."

Again, when I said that in "other educational meetings, and from other sources something of the same nature has appeared," I referred to a meeting of another association, and to a discussion at which "H. F. H." was not present, in which ground was taken, if I correctly understood it, by a noted teacher and author of a series of arithmetics, against the study, to any great extent, of what is commonly termed intellectual arithmetic. Other prominent educators hold the same view ; but I did not understand that they were included among those referred to by him when he says modestly, "My lead in the premises has had a quite extensive following." I believe most fully in mental arithmetic ; and that when the unnatural divorce between mental and practical arithmetic, the putting "asunder what God has joined together" is annulled, it will be so taught as to be of great value to the student through his whole course of mathematics, and to the man in business life ; and therefore without reference to "H. F. H.'s" "facts and reasoning," but with reference to the position taken by others, I brought in "a little of the 'milk for babes' on the subject, such as is contained in the first few pages of 'Colburn's First Lessons,'" and this may account for the "fog on the surface of the stream emptying into Lake Superior," if not for that on New Bedford Harbor.

Again, H. F. H. seems to think that I was pleading for "explanations of the abstract theory of numbers, and of the processes by which the slate work was to be performed," when, as a matter of fact, I did not say one word about these. That he should so understand me is one of the unaccountable things. I said, principally with reference to the lack of *time*, "the remedy proposed seems to be to teach less the philosophy, and more the processes of arith-

metic. With much that is stated I am in full sympathy. I have no doubt that sometimes the philosophy is too exclusively taught, and the processes insufficiently." The things contrasted here are the *philosophy* of arithmetic and the *processes* of arithmetic, not a word is said about the philosophy of the processes. More than that, in the last paragraph of my paper, a part not yet reviewed, I said that I would have a child taught to add and subtract, multiply and divide before he begins to study arithmetic, even as early as the second year of his school life; that I would have an exercise, purely as an exercise, in such work every day, if possible, through his grammar school course. I had in mind their slate and blackboard exercises, so as to secure facility and correctness, with no reference to the *philosophy* of the processes. It was only in this last paragraph that I had any reference to slate work; and therefore, when "H. F. H." says, as he does in closing, "I ask again as I have asked already, what considerable bearing can a range of such simple, elementary, mental problems have upon a discussion of the methods of slate work practised in our schools," I answer that, after due consideration of a question so important as to be worthy of repetition, I think they have no bearing — that if they have any, it must be by accident, for I was not writing "upon slate work practised in our schools."

E. A. H.

FITCHBURG, Sept. 5, 1874.

HOW TO TEACH LANGUAGES

So that the Pupils shall Gain the greatest Amount of Knowledge in the least time without Overwork.

METHOD AND DETAILS TO THIRD CASE.

1. Lesson. Learn the Greek alphabet and pronounce phonetically.
2. " Review and practice. Accents, learn their forms, names, and relative positions.
3. " 1st declension of nouns. Leave out contract nouns.
4. " 2d declension of nouns in os and ox only.
5. " 3d declension of nouns. Leave out contract nouns.
6. " Review declensions.
7. " Declension and regular comparison of adjectives.
8. " Verb *εἰμι* I am.
9. " Pronouns *ὅς, ὅστος*.
10. " Regular verb. Present Infinitive. Present, Future. and Aorist Indicative active.
11. " Imperfect, Perfect, and Pluperfect active; Augment and reduplication.
12. " Present and Imperfect passive and middle Future and Aorist middle.
13. " Perfect, Pluperfect, passive and middle Aorist and Future passive. Prepare Xenophon's Anabasis, I Book, I chapter, two sentences.

Time of recitation one hour.

Time devoted by the pupils to the study of each lesson, two hours.

Before a new lesson is assigned the lesson preceding it must be carefully reviewed, and the inflection as far as studied is to be continually practised.

I should go into details a little more, if it were necessary. What I indicated will suffice to show the way of proceeding. Let any one try it and he will see that the pupils can begin to read Xenophon with profit after twelve

lessons, provided there is enthusiasm and vigorous activity in the recitation-room on the part of the teacher, and faithful study on the part of the pupils. As the mind remembers easily by analogy and comparison, it is very important for the teacher to compare the Greek continually with the Latin, a knowledge of which I presume on the part of the pupil who begins the study of Greek.

The general plan of study will be throughout the same as laid down in one of my former papers: "*Teach only what is absolutely necessary, and when it is necessary, and teach it in such a manner that it can be easily understood.*"

This is a point of vital importance, and it is often overlooked by very learned men. I illustrate. I have before me a Greek grammar by a renowned author, and it is considered to be a good grammar, by the mass of testimonials; but the author seems never to have taught Greek to beginners. He gives the headings of the verbs in this way: —

λῶω to loose, εἰμί to be, ἵστημι to set, etc.

We know that λῶω does not mean to loose, εἰμί does not mean to be, nor ἵστημι to set.

If the first impression of anything is the most lasting, and the hardest to eradicate if it is wrong, we ought to be careful how we make these first impressions; and especially in this country authors ought to be careful, as many a lad has to learn mostly from books.

Another mystery presents itself in the same book, — a mystery it must be for a beginner, though it may be very good for a philologist, and especially for those who know Sanskrit. This is the formation of the present from the simple stem of the verb. It seems as if these nine classes of verbs should be learned in their scientific arrangement, as they are in large print; but I venture to say that out of fifty boys, however smart they may be, not two can study these nine classes of verbs and understand them and apply their knowledge. All the pupil wants to know, is, to know the present, then to give the principal parts, which have to be learned according to a very simple schedule, which can easily be worked out (of their regular verbs the principal parts have to be learned for each individual verb), and if he knows that, he can compete successfully with any one who thinks he is perfectly sure about simple and any other stem. Why, then, not give the present, then a synopsis of the principal parts; or, still better, give a synopsis of all the tenses of verbs, call the attention of the pupils to the formation of each tense, then compare different classes of verbs and let them mark differences in formation? The pupils will have something to think about; they will perceive quicker than we are inclined to think, and they will retain knowledge so gained more certainly than when presented in mystifying statements which are not yet reliable facts.

The more carefully one thinks the less mysteriously he will write and the less scientifically he will teach the elements of a branch of knowledge, as long as the branch of knowledge itself has to be mastered and not the science thereof.

F. H. KIRMAVER.

SUBTRACTION AND DIVISION.

To perform subtraction by addition: —

Illustration.		Solution.
748	$3 + 5 = 8.$	Place 5 as difference.
623	$2 + 2 = 4.$	" 2 "
—	$6 + 1 = 7.$	" 1 "
125		

It may happen that one or the other number of the subtrahend is larger than the minuend, then the operation is as follows:—

<i>Illustration.</i>		<i>Solution.</i>
7213	$9 + 4 = 13.$	Place 4 as difference ; add 1.
5839	$1 + 3 = 4 + 7 = 11.$	" 7 " " 1.
—	$1 + 8 = 9 + 3 = 12.$	" 3 " " 1.
1374	$1 + 5 = 6 + 1 = 7.$	" 1 " "

No rule required if the operation is understood.

To carry on at the same time the three processes of division, multiplication, and subtraction in division.

ILLUSTRATION.

$$\begin{array}{r}
 \text{Divisor. Dividend. Quotient.} \\
 31 \overline{) 73241} \quad (2,362. \\
 \underline{112} \\
 194 \\
 \underline{81} \\
 19 \text{ Remainder.}
 \end{array}$$

The solution is based upon the preceding method of subtraction, and needs therefore no further explanation.

There is no rule required for this operation either, provided it is understood. Where I went to school we practised all operations in arithmetic till we understood them fully. The teachers would explain, but would not give us any rules, and the text-books did not contain any rules ; so we had to learn arithmetic the same as a child learns to walk, without rule. And I think we should have scribbled more lustily with our slate pencils if we had known how many rules many a poor child has to learn, because in an evil hour it had come into the mind of some learned man to write a text-book on arithmetic with many rules in it.

F. H. K.

ST. IMIER, SWITZERLAND, Aug. 17, 1874.

To Editor of "*Massachusetts Teacher*":

It may interest you to know a little of the activity and interest that prevails among teachers here ; that even in the home where the system of Pestalozzi was originally developed, teachers are agitated by the same questions of disciplining ; difference of opinion in regard to means for training teachers ; methods of instructions in primary and higher schools ; the best means to secure regular attendance ; how to reconcile the rights of the parent with those of the state, etc. Education is in a highly advanced state in Switzerland, especially in the Protestant cantons where the system of Pestalozzi has had the fairest trial and produced the best results. The culture of science and literature are held in the highest esteem, and all the educational and disciplinary, scientific and methodical arrangements, beside reaching their special aims, concur to impart to the pupil, in a wonderfully rapid manner, a knowledge of the modern languages. My object, however, in writing you, is, simply to send you a report of the annual Congress of Teachers of French Switzerland. There were five or six hundred members present, besides many foreign teachers from France, Belgium, Germany, and Italy. One word about the situation of St. Imier. It is a beautiful place, rich from the long estab-

lished manufacture of watches, nestled in the pretty valley of Erguël or St-Imier, amongst the spurs of the mountains jutting out from Newchatel, surrounded by wild and cultivated scenery. The town had determined to do fitting honors to its guests. It was gayly decked with banners, evergreens twined into garlands, mottoes, words of welcome; a large tent was placed at the western extremity of the town, where a fine view could be obtained of the valley and the dark mountains that hem it in; speeches of welcome and thanks for the hospitality were made. The exercises of this Convention were opened by an address from M. Bodenheim, the President of the government of Berne, in which he traced the progress of popular instruction in the Jura, and closed with an appeal to teachers to continue the instruction of the youth of their country in conformity with the principles of liberty and progress.

The following questions were then called up for discussion: "What are the means for forming a teacher? Are normal schools absolutely necessary, and in case of the absence of these establishments how can their place be supplied?" Eight papers had been sent in, and after a lively discussion the following resolutions, in substance, were adopted: of the various means proposed for training teachers: (1.) individual study; (2.) teaching in primary schools and higher schools; these means are now insufficient; (3) employment as assistant teacher during the time the candidate is studying for his profession (this, however, shall not take the place of special studies); (4.) study at the University; (5.) finally, special studies can only attain the end in view, that is, thoroughly qualifying the teacher for his profession. The last resolution set forth the importance of having all the higher academies, the universities, and polytechnic schools accessible to all who propose devoting themselves to secondary instruction. The next question under discussion was: "What are the means under the control of the teacher, best calculated to secure, with obligatory instruction, the most regular attendance at school, while recognizing the rights of the parent?" After a short discussion the result was couched in something like the following: (1.) the necessity of regular attendance; (2.) the rights of the parent which must be considered; (3.) those of the state which are of equal importance, and which would demand the adoption of energetic and effective measures to secure attendance at school. I am unable to state just how this power of the state works to secure regular attendance; but I know that both here and in Germany, in the schools answering to our primary and intermediate schools, the average of attendance is about ninety-eight per cent. After the adoption of a few other resolutions of no general interest, a banquet, and sundry toasts, the Congress adjourned.

Perhaps one word in reference to the Roman remains found in this valley and the vicinity may be of interest. Of course it is well known that after the conquest of the Helvetii by Cæsar, and still later that of the Rhaeti, the Romans constructed magnificent military roads over the great St. Bernard to Bale and over the Splügen to Bregenz. Under the sway of the Romans a flourishing trade sprung, which covered the land with cities, as Aventicum (Avenches) in the Canton de Vaud and Vindonissa at the junction of the Aar, Reuss, and Limmat. There are even traces now of the Romanic language in some parts of Switzerland. The most interesting discovery that has recently been made is in reference to this road, which starting at Avenches took the direction of Soleure (Solodurum "in *Celtis nihil est Solodoro antiquius, unis exceptis Treviris, quarum ego dicta soror*"), passing by Aarberg over the marshy land in the valley of the Aar. It was supposed that the Romans adopted some means to protect this road from the inundations of the river; but there was nothing to confirm this supposition until the recent discovery at Hagneck of a tunnel about nine hundred yards in length, uniting the valley of the Aar with the lake of Brienne. This tunnel is not to be compared of course with that caused to be driven by Vespasian through

the Apennines ; — for the Flamian way is interesting from the fact of its being one of the few subterranean works executed by the Romans in Switzerland. It is pierced in sandstone, and remains just as when finished except the openings at the end which had become blocked up. In the construction of the new tunnel the Roman shafts have been made use of in the excavations. The subject of Roman antiquities becomes exceedingly interesting to one visiting the Rhine, Switzerland, and the Danube, as evidences are constantly before you of the marvellous works constructed by the Romans to protect their frontier ; but I must not pursue the subject further.

R. F. L.

THE NATIONAL EDUCATION ASSOCIATION

HELD its fourteenth annual meeting at Detroit August 4th, 5th, and 6th. There was an attendance of some seven hundred and a membership of about three hundred. It is composed of persons actively engaged in the work of education in all grades, from presidents and professors in our colleges and universities up through the seminaries, academies, High and Grammar schools of all sorts, to the teacher of the primary schools. The word *up* is used here advisedly ; for it is now recognized that instruction is equally important at every stage, and the greatest skill is nowhere so much needed as at the start. Any person interested in education may become a member of this body on payment of two dollars, and one dollar annually thereafter ; and each member is entitled to a volume of the proceedings. The volumes are printed from these annual dues and the proceeds of a limited sale, and have lately contained essays and addresses from the first educators in the land. The last two contained about two hundred and seventy octavo pages each. This is, then, a very liberal body, where all ideas on the subject, both old and new, may be brought forward to stand or fall on their merits in the discussion which they may occasion.

It has been truly remarked that in no other country is there or has there ever been such an association as this — voluntary, each member acting from interest in the cause, at his own expense and often with much labor — able, for a large proportion of its members are at the head of the profession — and covering a broad field, both geographically and in the range of the subjects with which it is concerned. In foreign lands a minister of state may direct, and his subordinates all along to the humblest school-room will execute, just as the pope may nod, and the whole line of prelates, bishops, and priests will obey. Not so here. The authority is at the other end. This peculiarity is at once a power and a weakness. It is a power because each community, each little district, is developed by acting for itself. It is a weakness because the results of experience are not easily made available.

Since schools, and in fact all the other excellent institutions of this country were established, a change has come over the land ; and we now behold, what the fathers could not have anticipated, and what they should neither be blamed nor praised for, since they were not omniscient, viz. institutions established for a people intent upon securing liberty, freedom, right, which must now be adapted to large numbers of a very different sort of people intent

upon something else — wealth, perhaps. One of these institutions is our schools. How, in the changed condition, to secure that kind and degree of popular education which is an essential element in the very being of our nation, is a problem which has given rise to various organizations among teachers. However skilful in the business of teaching one might become, without united action there was no way by which he might learn from the experience of those who had gone before ; and so no progress, no science of teaching, could be attained ; just as no science of Chemistry could have grown up if each experimenter had begun at the bottom. To meet this want, the first, or at least one of the first, associations of educators was the American Institute of Instruction, out of which have grown state, county, and city associations innumerable. At that early day the system of public school education hardly extended beyond New England and the Middle States. The institute, though still vigorous and useful, has therefore now become local ; and the National Association extends from ocean to ocean.

At the late meeting twenty-nine States and Territories were represented. Utah came in and the South held not back. By the way, is n't it here that the Mormon question should be settled ?

The association meets in general session morning and evening. In the afternoon the work is done in departments : that of Higher Instruction ; the Normal Department ; the Elementary Department, and the Department of Superintendence.

The sessions were opened by prayer. Can that practice be defended when some of the members, probably, do not believe in prayer, and others pray only by rule or by proxy ? Perhaps if nine people in a company wish to hear prayer, the tenth, so long as he is committed to no part of the exercise, would wait quietly, out of politeness ; but if he wishes to push his opinions into prominence, and dictate to the nine, they might claim the same right for their opinion and wish which he claims for his. In his opening address, Pres. S. H. White, of Peoria, Ill., alluded to the unequal educational advantages of the country and the city. Parents move to the cities to educate their children ; but the children do not return to the country. This inequality he claimed has to do with the unrest shown by strikes and labor reforms. It is the same question which we discuss under the name of half-mill tax. What the city owes to the country must soon be recognized. The first exercise on the programme was a report of the committee on Upper Schools appointed at the Elmira meeting by the chairman, Geo. P. Hays, of Pa. This report claims that "just now the rage is for establishing colleges which are not needed, and overlooking Academies which are." The weak point in our system is between the Grammar School and the College. We need more good High Schools and Academies. In the discussion, which followed the report, it was generally conceded that public High Schools are superior for fitting boys for colleges. The evening lecture was by Wm. R. Abbott, of Bellevue, Va., on the Profession of the Teacher. Pres. A. D. White's paper on a National University attacked fiercely sectarian colleges, and aroused the dozen or twenty presidents of such colleges, who were in attendance. A let-

ter from Pres. Eliot defined his position as simply opposed to the establishment of a university supported by the General Government. He has been erroneously quoted as in opposition to all public schools and government control of education. The Association passed a resolution in favor of a National University, and a committee was appointed to bring the subject to the attention of Congress. The paper by Dr. Clarke, of Boston, on the Building of a Brain, was exceedingly interesting and instructive. The following extracts are from the "Globe's" report:—

"Two duties, then, are imposed upon our civilization. Two problems are presented to our educators. The duties are, first, to secure the perpetuation of the race in America; and, secondly, to provide for the survival of the fittest here also. The problems are, first, to develop the individual to the highest degree; and, secondly, to obtain this development without interfering with the perpetuation of the best. In other words, humanity demands, and our education must give, both the highest development of the individual and the perpetuation of the fittest. . . .

"Now, unless men and women both have brains the nation will go down. As much brain is needed to govern a household as to command a ship; as much to guide a family aright as to guide a Congress aright; as much to do the least and the greatest of woman's work, as to do the least and the greatest of man's work. Moreover, in both sexes, the brain is the conservator of strength and prolonger of life. The force evolved from it, more than the force evolved from any other organ, enables men and women to bear the burdens and perform the duties of life; and with its aid, better than with any surgery, can they overcome the 'ills that flesh is heir to.' But the organs, whose normal growth and evolution lead up to the brain, are not the same in men and women. Consequently, their brains, though alike in microscopic structure, have infused into them different, though equally excellent qualities.

"... The brain must be built in connection with the building of the rest of the body, remembering constantly that the imperfections of the latter reflect themselves upon the former. Now, in one sense, the process of brain building is alike for the two sexes; in another sense it is different. It is the same for both, inasmuch as the process, which evolves the best possible brain, by means of appropriate brain exercise, including cerebration, out of the underlying organization, is alike in the two sexes.

"The process is different for the two sexes, in so far as there are any organs or sets of organs in the structure of the one sex that are not in the structure of the other. Provided the organization of both sexes is normal and all their functions normally performed, the same sort of brain work will develop the brain of each. But, if the methods of education render abnormal any part of the body, or interfere with any function, there will not only be damage to the part disturbed, and friction in its function, but the brain will suffer just in proportion to the importance of the organs disturbed, and the amount of the disturbance.

"At this point the speaker stated that he used the word brain as correlative of mind, not from a materialistic point of view, but because we can only know the mind through the brain.

"Build the brain aright, then, said Dr. Clarke, and the Divine Spirit will inhabit and use it. Build it wrongly, and the Devil will employ it. The development of the mind, then, means practically the development of the brain; and the building of a brain is a part of education. A wise and appropriate system of education, in its efforts to build a brain, either for the male or the female organization, will endeavor

to aid and imitate the process by which Nature performs the same task. Herein physiology can render infinite service to education — a service that the latter cannot afford to refuse. . . . It may be that we have no conception of what the human brain will yet attain to. Compared now as an instrument with what it will be ages hence, when both men and women are appropriately educated, when brains shall be built out of masculine and feminine organizations that have been appropriately trained, and from which hereditary evils have been eliminated, century after century, by the survival of the fittest — the brain of to-day, compared as an instrument with that brain of the future, fit for the use of a god, is as rude and imperfect as the lenses of two hundred years ago are, compared with the microscopes of the present day. . . .

"The method that builds a man's, builds, also, a woman's brain. But this identity of method in cerebral architecture implies, or rather necessitates, a difference in education between the sexes, just so far as there is a difference in organization between them, and no further. Identical education of the sexes is, in the last analysis, equivalent to an unjust discrimination between them: their appropriate and consequently varied education is equivalent to the same method of brain-building. The object of education for the sexes is the same. The physiological principle which should guide their education — that is, the appropriate development of the whole organization, so as to evolve the best brain — is the same. The application of this principle to home, social, and school life demands diversity of management. The same law, but diversity of application.

"The doctor, in stating the impossibility of progress without accepting and respecting the difference of sex, said, —

"The best quality, noblest power, and supreme beauty of the two sexes grow out of their dissimilarity, not out of their identity. We should cultivate the difference of the sexes, not try to hide or abolish it; for nature has selected difference of sex by which to give humanity its choicest beauty and quality. The perfection of one sex is unattainable by the other. Each loves and reverences in the other what it cannot attain itself, and despises any imitation. Let education respect and cultivate nature's selected difference."

Prof. Orton, of Vassar College, gave the result of his experience in the higher education of women. He thinks the young ladies of Vassar can "master the more difficult studies as easily as young men. The ellipsis in that sentence may be a little doubtful. He scouted the idea of co-education on the ground of economy. "Were I a woman," he said, "I would repel the argument as an insult." Prof. J. K. Hosmer of Missouri, who followed on a similar subject, the co-education of the sexes, wound up as follows: —

"In fine, it is the writer's belief that to deny to women the highest culture is unjust — is indeed disastrous; that for economical reasons this highest education makes necessary co-education. The co-education in universities is possible, even to some extent desirable, on account of a certain good influence which the sexes exert upon each other. That co-education is a matter of no difficulty we are not to believe, much less that it is the power which is to produce straightway a millennium of purity and good order. What the circumstances of American life seem to thrust upon us, it is not well to reject utterly. It is possible, on the other hand, to embrace the stranger with a hospitality and good nature quite too careless. "He who flies from and is afraid of everything," says Aristotle, "is a coward; and he who fears nothing at

all, but goes boldly at everything, becomes rash. The wise man shuns both success and defeat; he seeks for the mean and chooses that."

Dr. J. U. Hodgkins, Deputy Superintendent of Instruction in Ontario, gave an account of education in that province, which has some excellent features.

There is hardly time to do more than mention the exercises of the several departments.

HIGHER INSTRUCTION.

In calling this section to order, President Read, of Missouri, remarked "it is falsely charged that college men abstained from discussion relative to the higher education. If it ever was true it certainly is not now." The first paper was by Dr. Peabody, of Cambridge, on "The Elective System in Colleges and Universities." This was one of the ablest and most thorough papers ever read before the Association. Fifty years ago the college graduate was considered equal to any emergency, equally conversant with any branch of studies that any profession was likely to demand of him. But it is far different now, when the division of study has become so marked as to require a special course for nearly every vocation in life.

In Harvard, the experiment of elective studies has worked well. This was the almost universal testimony from colleges where it had been tried. Prof. Charles S. Venable, of the University of Virginia, read a paper on the plan of that institution, in which the elective system has been adopted.

The Hon. J. W. Hoyt, of Madison, Wisconsin, read a paper on a National University, narrating what had been done by a committee appointed by the Association to consider that subject a few years ago. The speaker was particularly severe in his remarks upon the report of the committee at the last annual meeting at Elmira, N. Y., and the course of President Eliot in opposing the establishing of a National University. He took up the objections to the bill as drafted for such a university one by one, and replied to them, arguing that the objections bore against the details of the proposed system and not against the principle upon which it was based. He closed with a somewhat elaborate argument on the power, duty, and privilege of the National Government in its relations to the higher education.

There was a paper by Prof. Butler, of Madison, Wis., on "Classical Studies in Higher Institutions of Education." He favored the pursuit of these studies.

Dr. Patterson, of the University of Kentucky, spoke on the subject of University Endowments, alluding in a pointed way to the positions of Dr. McCosh, last year.

NORMAL DEPARTMENT.

The subjects considered here were obtained by the Pres., Mr. Moose, of Cortland, N. Y., from answers to a circular asking each principal of a Normal School in the United States to suggest one. Collectively considered they may not inaptly be termed "An Elaboration of the Profession of Teaching." This, the president thought, must be done mainly by the Normal Schools.

The first paper on the programme was on "What Constitutes a Consistent Course of study for Normal Schools?" by Prof. John Ogden, of Ohio. He recommended that two courses be established in Normal Schools, distinct in nature, yet blended in practice,—the academic and the professional; and that the academic be studied with strict reference to the Normal. "Training Schools in connection with Normal Schools" was the next paper, by J. C. Greenough, of R. I., which was followed by "What are the Essentials of a Profession," by Larkin Dunton, of the Boston Normal School,—both valuable papers,— "Method and Manner," by Prof. Louis Soldan, of St. Louis, Mo. was the final paper. At the close the following was adopted:—

Resolved, That a committee of three be appointed to formulate and print a course of professional instruction, to be discussed at our next meeting. The following gentlemen were appointed: Bellows, of Mich., Jones, of Ind., and Dunton, of Mass.

ELEMENTARY INSTRUCTION.

Here valuable papers were read by E. E. White, of Ohio, on "Several Problems in Graded School Management," Miss H. A. Keeler, of Cleveland, on "Elementary Instruction in Language," by J. W. Armstrong, of Fredonia, N. Y., on "Instruction in Science in Elementary Schools," and by Mrs. A. C. Martin, of Boston, on "What Shall we Attempt in our Elementary School." Spending less time in geography, arithmetic, and grammar, she would supplement these studies with a more extended study of history, going outside of American history, and with books which are worth reading.

The Department of Superintendence held its principal business meeting six months ago in Washington. The chief business transacted here was the discussion on the report of a committee on statistical forms.

The success of this meeting of the Association must not be judged by this imperfect account. The volume of proceedings will be issued in December, and contain the valuable papers and the discussions. The people of Detroit entertained with true Western hospitality. The bells were rung, the public buildings illuminated, a reception was given by Governor Bagley and another by Senator Chandler, and an excursion on the lake was tendered all, in honor of the Association. All these and the friendly interchange of thought leave pleasant memories of Detroit. The New England party came home over the Lakes; and for cool, quiet rest, for the dear delight of travelling without effort and with no discomfort, for a book, a chat, or an easy game with pleasant company, go over the Lakes in sunshiny days and starlight nights in the snug little steamer "St. Albans," with a merry crowd of teachers, and stop at Niagara, and at Alexander Bay among the Thousand Islands.

M.

MORALS AND MANNERS.

MANY teachers have wished for a text-book in ethics adapted to the intellectual capacity of the children in the higher grades of our ward schools. Such a want Mr. A. M. Gow has attempted to supply by his work entitled "Good Morals and Gentle Manners."

The book has some very good features. It is throughout written in a style that can be easily understood by children, and anecdotes are frequently introduced, many of them of such a character as to interest and impress young readers.

He divides the work into three parts : the Moral Law, the Municipal Law, and the Social Law. So far, the classification is intelligible ; but beyond this it is difficult to discover any orderly arrangement. Many of the special duties are well treated, but their relations to one another are not clearly brought out. What is the logical sequence, in five consecutive chapters entitled "Filial Obedience," "Business," "Fidelity," "Amusements," "The Poor" ? One would not expect to find a chapter headed Fidelity devoted to the presentation of various arguments in favor of apprenticeship ; nor can an ordinary mind detect the propriety of inserting in a discourse on The Cultivated Voice two pages upon introductions. Mr. Gow's quotations are not always applicable to the subject under discussion. When speaking of the folly and wickedness of becoming surety for another at the risk of one's own business, he quotes, "The wicked borroweth and payeth not again," a sentence referring rather to the borrower than the lender.

There are, however, still graver faults in the volume before us. The author gives great prominence to motives which are by no means the highest. He begins the book with a chapter on Good Society, which, in justice to him it must be said, he defines as "the society of the good." He then says that "these lessons in goodness and politeness are necessary if we would enter good society." It is true that other and better reasons for right conduct are stated in various places afterwards, but it is certainly unwise to begin a treatise on morals with the enunciation of an essentially selfish principle.

When Mr. Gow reaches the consideration of why a thing is right or wrong, he is sometimes contented with referring to the Scriptures, finding there a precept that applies to the question, and then passing on to some other point. For instance, in the chapter on Evidence we find the following sentence : "As it is written in the moral law 'Thou shalt not bear false witness against thy neighbor,' every one is under obligation to speak the truth." A teacher of ethics should lead his pupils to think for themselves on these subjects ; to discover wherein a proposed course of conduct is right or wrong, fitting or unfitting ; and an instructor who would have them rely on authority, however high, is, in our opinion, failing to perform the task which he has undertaken.

SYRACUSE.

INTELLIGENCE.

WANTED, the volumes of the "Mass. Teacher" for 1856, 1857, 1858, 1859, 1865; also two *numbers* each for February, April, and November, 1865, and for March, 1871. A liberal price will be paid for the above, it being desirable to have as many complete sets as possible. We hope that teachers who may happen to have any of the above to spare, will oblige us by making it known to the publishers, A. Mudge & Son, 34 School St.

THE ANNUAL MEETING OF THE MASS. TEACHERS' ASSOCIATION. By vote of the Directors of our Association, our next Annual Meeting will be held, like the last, at Worcester, on the Monday, Tuesday, and Wednesday of Christmas week, and the exercises will be, as then, one half-day in sectional, and the remainder of the time in general sessions.

Although the time and place are not convenient to all, yet, after a full discussion at the meeting of the Directors, they appeared to be open to fewer objections than any others which were proposed.

It is desired to make the programme of exercises both interesting and profitable, and to secure this end, the Committee of Arrangements would be glad to receive from members of the Association, suggestions of topics or questions which they would like to have discussed at the meeting, which should be sent *immediately* to the President, Mr. A. G. Boyden, Bridgewater, Mass. The programme of the meeting, with railroad and hotel arrangements, will be announced in the December number of the "Teacher."

ALFRED BUNKER, Sec'y.

PHILLIPS ACADEMY, ANDOVER. Mr. J. M. Tyler, Teacher of the Junior Class, Classical Department, has resigned to continue his studies, and Mr. D. Y. Comstock, Principal of the High School, Lonsdale, R. I., has been elected his successor. Mr. T. A. Mills, a graduate of the Scientific Department, has been appointed tutor in that Department. This addition to the corps of teachers has been rendered necessary by the large number of students in attendance this term.

IN justice to the author of the poem in our last, we make the following corrections:—

3d Verse. For "The Locust rasping still his busy, restless wing," read "The Locust rasping still his busy wing."

10th Verse. For "To youth's bright revel and with forward lean," read "To youth's bright revel and then forward lean."

15th Verse. For "His rhythmic, triune being, — body, mind, and soul," read "This rhythmic, triune being, — body, mind, and soul."

18th Verse. For "In lazier wisdom but with grace her own," read "In easier wisdom but with grace her own."

22d Verse. For "'Tis sweet to hear and ask one fostering mother," read "'Tis sweet to hear and tell our fostering mother."

23d Verse. For "To say how bright and how undimmed the way," read "To say how bright and how undimmed the ray."

Books.

LITTLE CLASSICS. Edited by Rossiter Johnson. Published by James R. Osgood & Co.

The first volume contains gems from Hawthorne, Griffin, Greenwood, Bret Harte, E. E. Hale, and De Quincey. Each of these is a "work of art, which, embodying a sacred principle or a living idea, condenses its plot, its moral, and its effective climax into the limits of a single sitting." The book does not consist of "elegant extracts," broken from the quarry and exhibited as specimens. Each story is complete, differing only from the conventional novel by dispensing with "its caravan of character, and its long bewilderment of detail."

LANGUAGE LESSONS; An Introductory Grammar and Composition for Intermediate and Grammar grades. By Wm. Swinton. Published by Harper & Brothers.

ELEMENTS OF THE ENGLISH LANGUAGE. An Introduction to the Study of Grammar and Composition. By Bernard Bigsby. Published by Ginn Brothers.

The rapid and extensive introduction of the above-named books into our grammar schools indicates that our teachers at last have determined to teach their pupils to "speak and write the language correctly," instead of devoting all the time allotted to grammar, to a technical system of analysis and parsing. In 1864 the president of the National Teacher's Association, — himself the author of a grammar, — said, if it were not for being unpopular, I would say that a little book, called the "Grammar of Composition," is the best book we now have to teach pupils a correct use of the English Language. Notwithstanding this high recommendation, however, the book had but a very limited sale.

The same may be said of the best features of most of the grammars published ten or twenty years ago.

Thus in Greene's series, where a great many written exercises were given, they were almost uniformly omitted by the majority of teachers, and the pupils were kept upon oral analysis and parsing.

It is an evidence of progress that teachers are now calling for and using these books.

"Swinton's Language Lessons" has recently been introduced into the Boston schools.

"Bigsby's Introduction to the study of Grammar and Composition," has been introduced, we understand, in many places, and we have no doubt that an intelligent use of either book will do much to take away the reproach which justly attaches to grammar as a school exercise.

THE ERA OF THE PROTESTANT REVOLUTION. By Frederic Seebohm; and **THE CRUSADES,** by George W. Cox. Published by Scribner, Armstrong & Co.

These are the first two volumes of a series of "Epochs in History," edited by Edward E. Morris. The series will comprise, in addition to the above, "The Thirty Years' War;" "The Beginning of the Middle Ages;" "The Norman Kings and the Feudal System;" "The Early Plantagenets;" "Edward III.;" "The Houses of Lancaster and York;" "The Age of Elizabeth;" "The Stuarts and the Puritan Revolution;" "The Fall of the Stuarts;" "The Age of Anne;" "Frederick the Great and the Seven Years' War;" and "The War of American Independence."

It will be seen that the epochs selected will form an interesting and instructive series, embracing the most important topics of mediæval and modern times. They are issued in neat volumes of convenient size, and will constitute quite an historical library for family use. We predict a large sale, and what is more, that they will be *read*.

TEACHER'S MANUAL FOR FREEHAND DRAWING IN PRIMARY SCHOOLS. By Walter Smith. Published by James R. Osgood & Co.

The introduction of drawing into our public schools, we regard as the most important step yet taken, to make them contribute directly to the industrial pursuits in which the great mass of pupils

will be engaged. It has not been, however, unattended with difficulty. Very few of our teachers have had any systematic training in drawing, and in our cities, it has been found necessary to give them instruction, in order that they may impart it to their pupils. As this would be impracticable in many places, Prof. Smith has not only, in this Manual, indicated the work to be done, but has told how to do it, in such a manner that any intelligent teacher of a primary school may secure satisfactory results, even though she may have had no other instruction in drawing. Not that such instruction, when it can be obtained, is not desirable; in view of the present requirements, every teacher is bound by interest and duty to obtain a mastery of the principles and practice of drawing, not less than of reading, grammar, arithmetic, etc. A careful study and use of this Manual will probably show most teachers that drawing is of much more educational value than they supposed.

Drawing from dictation, for example, will put the intellectual faculties to a test sufficiently severe, while the description of figures, in clear and definite language, will furnish the best possible exercise in the use of language. Like all really good books, it contains many suggestions which are essential to the highest success in teaching any branch of study.

BOOKS RECEIVED.

HISTORY OF THE GERMAN EMPERORS AND THEIR CONTEMPORARIES. Translated from the German and compiled from authentic sources. By Elizabeth Peake. Published by J. B. Lippincott & Co.

A COMPLETE ALGEBRA. Designed for use in schools, academies, and colleges. By Joseph Ficklin. Published by Iverson, Blakeman, Taylor & Co.

OUTLINES OF THE WORLD'S HISTORY; ANCIENT, MEDIÆVAL, AND MODERN. By Wm. Swinton. Published by Iverson, Blakeman, Taylor & Co.

A MANUAL OF METALLURGY. By Wm. Henry Greenwood. Published by G. P. Putnam's Sons.

COMFORT'S GERMAN PRIMER. Introductory to the German Series. By Geo. F. Comfort. Published by Harper & Brothers.

THE GERMAN AND ENGLISH INTERPRETER; containing extracts from the best German Works, with a literal and a free interlinear translation. By Herman Bokum. Published by Schaefer and Koradi, Phila.

THE MASSACHUSETTS TEACHER.

[L. R. WILLISTON, Editor for November.]

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↓ ENTRANCE EXAMINATIONS.

AN excellent paper in the last number of the "Teacher" by J. T. pointed out the right method of conducting written examinations. The method advocated — that of testing, not the mere memory of facts, but the power acquired by the knowledge of facts — is certainly the only way of getting at the real acquisitions of a scholar and his capacity for higher work. An examination, to be what it pretends to be, must aim at finding out what the scholar *is*, and what he can *do*; so that, if found capable, he may go up higher. The entrance examinations of our schools and colleges have no other object than to decide this question of competency for advanced work. But it is this system of entrance examinations which is in a large degree responsible for the evils deprecated, of superficiality and cram, and for others quite as serious. It is the object of the present paper to point out some of these evils, and to advocate a system of promotion from grammar school to high school, and from the latter to college, like that which prevails within the schools and colleges themselves. Who are the proper authorities, and where is the place to decide the question of a scholar's "ripeness or unripeness"?

Our American colleges, gathering their students from every quarter and from schools of every degree of merit, have fixed the

examination at the time of entering, and at the college ; * and the same custom has been followed since written examinations have come in vogue, in our grammar and high schools, though the necessity for it has been by no means the same. In Germany, on the other hand, the custom has always prevailed of holding the trial examination at the Gymnasium at the time of leaving, and making the promotion to the University dependent not wholly upon it, but also upon the student's general "attainments, conduct, and diligence." So from every class and grade there is a leaving examination and a recommendation to the next higher grade. Those who wish to enter the University or any school must go to the Gymnasium, or the school of the lower grade, and obtain its diploma. Only in the case of the few who come from private instructors, does the result depend upon the examination alone. Let it be understood, also, that the leading examinations for the University consist largely of essays in German and Latin upon subjects drawn from ancient or modern literature.

I propose to show the advantages of such a comprehensive leaving examination over our entrance examinations, or rather of that system in which the scholar receives his permission to enter the higher grade from the school he leaves over one in which all is made to depend upon a single examination at the doors of the higher school.

In the first place, it is obvious that the teachers who have had charge of a boy for a year or more alone know him wholly. They if any know what he is, what he can do, and will do, and how much of himself he will fail to put upon paper. They have seen him put forth his powers naturally and harmoniously, and are not obliged to form their estimate of him from seeing him *spurt*, to use the boating slang, under the pressure of a great excitement. Their judgment of him formed after daily close oral examination is worth much more than that based upon any written examination, however minute.

In the next place, the leaving examination does away with the haste, the crude preparation, and the cram, more or less characteristic of all our entrance examinations, and secures a more healthy

* Yet the fact that in many colleges the *matriculation* is fixed at the end of the first year, shows that formerly it was the *year's work* which was considered as the real examination.

mental development. How crude this preparation often is, how little of real intellectual power it evinces, a cursory survey of a pile of examination papers written for admission to any high school would be pretty sure to afford a melancholy proof. To pass over in the shortest possible time the appointed road, and to catch the magic words that are to open the doors to the stage beyond, tends to become with parent and pupil the supreme end. Boys preparing for college fret with impatience at any requirement which does not take them by the shortest "cut" to college. "Is that required, sir?" is the question which too often meets a teacher's endeavor to build out a broader basis for his pupils. He will be told, perhaps, how A B got into college without this or that, and in what marvellously short time. Your average boy is not ambitious for culture; he wants to get on, and the "coach" that travels fastest is the vehicle for him. But real culture is not to be hurried. All fine growth is slow and quiet; it is the fast-growing tree that snaps in the first storm; the wood that takes the best polish has been a century growing. The air best suited to letters or science is still and free from excitement. The perpetual stimulus of an impending entrance examination is unhealthy, and brings tumult into minds which most of all need quiet. Whatever, then, will curb and steady the hurry and fret of youth, and impart a calmer tone to their minds, is to be welcomed. But these examinations, made as they are the sole test of "ripeness or unripeness," tend all the other way. The candidate for one, for years even before he reaches it, builds all his hope and ambition upon his success in it, and views knowledge only in its relation to it. The wise builders of the Prussian school system, of whom William Von Humboldt was chief, took good care to banish haste and excitement from education by not making the mere passing of an examination everything, putting emphasis rather upon the training which precedes it. "So well do they know how insufficient an instrument for their object — that of promoting the national culture and filling the professions with fit men — is the bare examination test; so adverse are they to cram; so clearly do they perceive that what forms a youth, and what he should in all ways be induced to acquire, is the orderly development of his faculties under good and trained teaching.

"With this view, all the instructions for the examinations are

drawn up. It is to tempt candidates to no special preparation and effort, but to be such as a scholar of fair ability and proper diligence may at the end of his school course come to with a quiet mind, and without a painful preparatory effort, tending to relaxation and torpor as soon as the effort is over.' The total cultivation of the candidate is the great matter, and this is why the two years of *prima* are prescribed: 'that the instruction in this highest class may not degenerate into a preparation for the examination, that the pupil may have the requisite time to come steadily and without overhurry to the fulness of the measure of his powers and character, that he may be securely and thoroughly formed, instead of being bewildered and oppressed by a mass of information hastily heaped together.' All *tumultuous preparation* and all stimulation of vanity and emulation is to be discouraged, and the examination, like the school, is to regard the substantial and enduring.* Accordingly, the composition and the passages for translation are great matters in German examinations, not those papers of questions by which the examiner is so led to show his want of sense, and the examinee his stores of cram.

"That a boy shall have been for a certain number of years under good training is what, in Prussia, the State wants to secure; and it uses the examination test to help it to secure this. We leave his training to take its chance, and we put the examination test to a use for which it is quite inadequate, to try and make up for our neglect." — *Matthew Arnold's Higher Schools and Universities in Germany.*

Moreover, the system advocated allows the teacher to set before himself a higher standard than that of getting his pupils *through*. To a teacher who is preparing a class for an outside examination, upon which his own reputation, as well as their fortune, is staked, the temptation is constantly presented to make that his standard, and to aim no higher. Nay, he will probably be greatly blamed if he does not. Education, under such a temptation, is apt to dwindle into mere drill, and its high meaning to be forgotten. Insensibly the teacher becomes a mere bond-slave to an outside master; the things of the spirit lose their interest, and the let-

* *Perverse studet qui examinibus studet*, was a favorite saying of Wolf's.

ter — mere verbal scholarship — carries the day. Why spend time upon niceties of translation, upon the logical development of one of Cicero's orations, upon the discussion of points in history, upon the characters of the actors and writers of antiquity, since none of these things will tell at the college examination? The school library may be full of the most valuable works of reference, but the teacher who has learned that it is necessary for his own interest to get his boys "in clear," will think he can hardly spare the time to make his boys acquainted with Plutarch's pages, or such books as Becker's Gallus and Charicles, Wordsworth's Greece, Mommsen's and Grote's Histories, or even with Smith's Dictionaries. It is true that from such works, and by treating the Latin and Greek text-book more as literature and less as a parsing book, more of the life and spirit of antiquity, and all that goes to make *character*, can be gained; but these things cannot so well be put upon paper by ordinary methods of examination, and are not what the boy is to be examined upon at college. In short, all studies, more especially those which deal with man, whether language or literature or history or geography, are narrowed and degraded, and lose half their value as instruments of culture, when taught by a teacher who looks to an outside examination by question and answer, to test the result of his teaching. Lastly, these great critical examinations are helping to banish the love of reading from the coming generation. Mr. Emerson is reported as lamenting that even the best college men nowadays read comparatively little, by no means as much as they did in his day. The Harvard College reading-room, furnishing newspapers and periodicals, is but just supported. There are, perhaps, several reasons for this decline of the love of reading; but one important one, I believe, is this, that the best intellectual life in our colleges is absorbed in the preparation for examinations, and in the keen competition for honors. In a less degree, but still noticeably, is the same influence felt in our high schools and even grammar schools. "I call that a good teacher who gets his pupils to read," said a wise lady to the writer. But, judged by this standard, there are few good schools. The voluntary reading of worthy books is becoming lamentably rare, and most of all where the stimulus of an impending examination is most felt. In the classical department of our high schools, the reading of standard English

literature as a part of a regular course of study is generally neglected, while boys who have begun to scent the college examination are almost universally considered exempt from such waste of time, whether in school or out. Harvard College has, indeed, to its credit, placed among its new requisites for admission, English composition, "the subject to be taken from such works of standard authors as shall be announced from time to time." But unless something more than mere correctness "in spelling, punctuation, grammar, and expression" is desired, not much will be gained in real knowledge of any work or its author. "If that is all that is wanted," said a boy who had brought to me a very thoughtful and well-studied paper, "I won't try to read upon the next subject."

Yet, while any knowledge of English authors and their works has been almost entirely excluded from the course of study preparatory for college by the pressure of the admission examination, this study has been greatly gaining ground of late in the English department of our High Schools, simply from the general belief on the part of the educated community and the most enlightened teachers that it is a valuable means of culture. Is it any less so for boys preparing for college, or does any college course supply the deficiency? Is it too much to say that it is possible for a young man to prepare for and go through most of the colleges in our land without ever having read a page of Shakespeare, Milton, Pope, Goldsmith, Cowper, Wordsworth, or Scott, or knowing anything about their relation to literature, and that this ignorance is almost literally true of some of the first scholars of every class? Such studies are thought rather too simple for a college course, and in the high school there is no time for them. Yet, who does not believe that, were it not for the narrowing effect of the college examination, the same influences that have secured for English literature an honorable place in the English department of our high schools would have secured for it the same place in the classical?

I have spoken more at length of the narrowing influence of the college examinations upon the high school, simply because I believe it to be more pernicious than at earlier stages, since a larger and higher culture is then possible. But upon the grammar school, the entrance examination to the high school acts

with a like hurtful influence. Just so far as that examination is made the standard, exercises which do not directly help to success in it will be neglected. Reading, both as an elocutionary exercise, and as a means of awakening thought, oral lessons upon familiar objects, the little of everything that a child should be helped to see every day that he may become an observer, all things, in short, that cannot be reduced to the exact measure of the high school examination, get but half the attention they deserve, or none at all.

And yet it is as true as that "the life is more than meat," that education is more than mere knowledge, and that culture is the true end, which no common examination can gauge. But these epoch-making examinations in the life of a youth emphasize the former, as they of necessity must, since what is examined must be something that can be accurately measured and marked for comparison. They foster the notion that the object of a course of education is to get as large a load as possible of facts which is to be *dumped* at certain places and times, and keep the mind of the young constantly directed forward, instead of occupied with the present.

Let me not be thought to deprecate written examinations. They are a useful and almost indispensable adjunct in teaching, and should be often substituted for the daily oral examination. Framed so as to test the comprehension of principles, sometimes in the form of questions, sometimes of topics, and sometimes of translation, they are an invaluable instrument in training to accurate knowing and clear thinking. We do not need Lord Bacon to tell us that "writing maketh an exact man." If entrance examinations are to be held at all, by all means let them be largely in writing. The objections which have been presented are not to the form, but to the use made of them.

And now let me answer more particularly the question which my readers, if any have followed me so far, have, perhaps, been asking, — How shall we test the fitness of scholars to enter the high school or college?

As to the high school, the answer is ready. Admit all who have merited promotion by their daily work, and their success weekly or monthly examinations, held by each teacher in his own class, and who bring from their school a diploma to this

effect. If desired, the diplomas might be of two grades, one admitting to the high school, the other certifying to a completion of the grammar school course. The system of admission upon diplomas has already been adopted in Boston, and very likely in other places. Can any one name any good reason why it should not be adopted everywhere?

For admission to college, some other plan must evidently be devised, since schools in different places and in widely different circumstances would soon have widely dissimilar standards of fitness for college. The colleges have heretofore set the standard. Let them still do so, for no other authority can do it so well. Only let them set the standard of a really broad education, including the elements of all the great branches of knowledge. This will no longer be found so difficult, when the memory has not to struggle under the burden of a mass of details carried for a distant examination. Let them prescribe text-books, the amount to be read, and the method of teaching, as far as possible. Instead, however, of examining the young men as they come from the schools, as heretofore, let them examine the schools themselves, either by members of their own faculty, or through other agents whom they can trust. By all means let the schools be under careful supervision, and let the examination of the school, that is, of its methods of teaching and the quality of instruction, be thorough. Let the standing of each school be known to the proper authorities, and to the teachers themselves. If found satisfactory, let its graduates have admission without further examination to the various colleges which have accepted it. If found wanting in any important respect, let conditions, more or less severe as the case may warrant, be annexed to the entrance of its graduates. Revive too, if you please, for further security, the old custom of matriculation after six months or a year, that each school may take good care not to send up young men unripe for college studies. Such a connection between school and college would, of course, be entirely voluntary, brought about through the agency of the committee or trustees of any school wishing to send young men to any particular college. It would be necessary, probably, still to retain some examinations for those who might come from private instructors, or from places too distant to send examiners, or from schools not approved; but the number of such would become smaller each year.

Were such a system as is here outlined * adopted generally by our leading colleges, it would do more, I am confident, to improve pre-collegiate education in our country than anything that has been done in the last twenty-five years. The schools would be brought into a vital connection with the colleges, from which they could not fail to reap great benefit. But more than all, the evils of preparation for a great critical examination, narrowing and degrading in its influences upon teacher and pupil alike, would be removed. The way would be cleared for a plan of education broader and higher than any hitherto in use,—a plan which should simply regard “the substantial and enduring, and aim to secure for every child” the “orderly development of his faculties, under good and trained teaching.”

L. R. W.

* Since this article was written, a communication has appeared in “The Nation,” in which the writer calls the attention of its readers to the fact that a system like this has been for the last five years in successful operation under the authority of the University of Michigan, an institution which has more than once led the way to useful reforms in education. The following announcement is now annually published in the University Calendar :—

“SPECIAL NOTICE TO PREPARATORY SCHOOLS.”

“A committee of the Faculty will visit, once every year, any public high school in Michigan, on request of its school board, and report its condition to the Faculty.

“If the Faculty shall be satisfied from such report that the preparatory courses of study in the school thus visited embrace all the subjects required for admission to the University, and are taught by competent instructors, then the graduates from such preparatory course will be admitted to the Freshman Class of the University without examination.

“They must present to the president, within three months after their graduation, the diplomas of their School Board, certifying that they have sustained their examinations in *all* the studies prescribed for admission to one of the three courses, classical, scientific, and engineering, or Latin and scientific. They will also be required to appear at once in their classes, otherwise they can be admitted only after examination.

“The privilege of admission on diploma is limited to public schools in Michigan, and their school boards must make the application annually.”

SCHOOL SCIENTIFIC SOCIETIES.

THE credit of having originated the meeting in different localities, at stated periods, of scientific societies belongs to Switzerland. The Helvetia Society of Natural Sciences has found imitators throughout the civilized world ; the American Association for the Advancement of Science being the most prominent society of that type in this country. Physicians, philanthropists, agriculturists, architects, and others, have likewise annual meetings in various parts of the country, with marked advantages. But we only mention these to introduce to notice a much more modest association founded some years ago in a part of the same small republic of Switzerland, and which, we think, well worthy of imitation in our country.

In 1865 a society was formed in the small canton of Neuchatel, the former home of Agassiz and Guyot, by the name of *Club Jurassien*, so named from the Jura mountains, in which this canton is located. The object of the club or association is, according to the first article of its statutes, to "develop among the young the taste for natural sciences, and to study, in a special manner, and under all its faces, the nature of the Jura." To this effect the society organizes frequent walks and excursions, during which the members study the rocks, the fauna, and flora of the Jura, its historical and archæological monuments, make collections, which, placed in the schools of the different localities, may become the nucleus of school museums for instruction. The society designs also to acclimatize useful or interesting animals and plants. It will also cover the country with a net-work of accurate observations on the periodical phenomena of nature, so as to obtain ultimately accurate data on the supply of water of our country and on the calendar of its fauna and flora. By a monthly publication, it gives the results of its activity and the most interesting communications of its members.

Any person taking an interest in the objects of the society may become a member ; likewise all the young people attending school. Sections are organized in the different towns and villages, electing their own members and officers, having their own meetings, etc. An annual meeting of all the sections is held in

some locality presenting, if possible, some interesting peculiarities. At the general meetings a central committee is elected, the members of which are chosen each year from a different neighborhood, but so that they may readily come together in quarterly meetings. Further details of organization we may leave out for the present.

The society is in a very flourishing condition, and has spread itself over the neighboring cantons of Vaud and Geneva. Its annual meetings are generally held in the open air, on mountain tops, or in green valleys, each section bringing its banner, each member decorated with the simple badge of the club, — a spruce twig in the button-hole; simple provisions are brought picnic fashion, and hospitable neighbors are always found ready with fresh milk, home-made bread, butter, and honey. Here the annual report of the central committee is read, communications are made by the members, and last, but not least, friendly relations are opened between members from different parts of the country, proposals for exchanges of collections made, general places of research discussed, etc.

The publication of the society is a small but tastefully prepared lithographic sheet, illustrated as a labor of love by artists of considerable merit, and costs about fifty cents a year. We have only a few numbers before us now, but from them, and from recollections, we shall try to give some idea of the subjects treated. We find, for instance, descriptions of rare animals and plants and the localities where they are found, accounts of their habits or mode of growth; in one locality the boys report a complete census of the birds' nests within the limits of their villages, — a singular occupation for them apparently, but which, repeated in different years, will give us accurate data for the relation between the increase or decrease of small birds and the ravages of insects; then we find descriptions of remarkable caverns, in which prehistoric man had his dwelling, and has left the ashes of his hearth, the bones of the animals on which he fed, and the rude stone implements with which he killed his prey. Others again have described remarkable erratic bowlders, and, when they presented peculiar points of interest, have procured for them the benefit of a legislative enactment protecting them against destruction by the quarryman. Observations on the annual rain-fall, on the drain-

age of every river basin, are recorded in another number. Trees, remarkable for their size, are noted. New localities of rare plants or insects are recorded, or lists of plants peculiar to certain soils made out; as, for instance, all the plants growing on a peat bog, or on a limestone hill, or on a granitic moraine, etc. Some of the boys have interviewed all the sportsmen of their villages, and obtained from them the numbers and kind of game annually shot. Had we the full files of the "*Rameau de Sapin*," we might extend this list much further, but this will suffice.

Now, will not some one of our high schools set the stone rolling by forming the first section of a similar society? It is sure to find imitators, and to spread over our State first, and, ultimately, over our whole country, the thorough knowledge of which is next in importance and second only to the knowledge of ourselves. When, in after years, the "oldest inhabitant" is consulted about changes of climate, drying-up of springs and rivers, etc., he will no longer trust to his memory, biased with the universal propensity of glorifying the past at the expense of the present, but he will refer you to the published records of his and his schoolmates' observations, and enable you to compare them with those of his grandchildren.

We leave the subject in the hands of those best able to give it a good impulse — the school-teachers: let them co-operate with those among their pupils whom they think most likely to take a lead in the matter; organize meetings at stated periods; open correspondence with neighboring clubs; in the proper season have field meetings and excursions; further organization will develop itself as wanted.

A few subjects of inquiry adapted to this part of the country may not be out of place. With regard to the animal kingdom, the increase or decrease of useful or noxious animals ought to be noted; the appearance of rare animals; the dates of arrival and departure of migratory birds; the dates of appearance of insects; the spreading of new noxious insects (potato-bug for instance), and observations on their enemies; the dates of appearance of migratory fishes; notes on the increase or decrease of fishes in connection with fish breeding (great assistance could be given to our fishery commissions by the great accumulation of very simple observations carried on in every locality of the country). Col-

lections of noxious insects could be made at very little expense, and kept in every school. In the vegetable kingdom, the date of foliation and flowering gives valuable climatic indication ; and the few large trees remaining ought to be measured and recorded, and means taken for their preservation; and, if the single point of impressing on the rising generation the immense importance of the preservation and replanting of forests could be attained through the instrumentality of such a society, it would gladden many a far-seeing lover of his country, who can see it slowly but surely falling, under the present system of devastation, to the barren state of Greece and Spain. Poisonous plants could be collected, pressed, and framed in the school-houses, so that every child should know them, and thus the chances of fatal mistakes be diminished. Useful plants would become better known, as for instance the edible fungi, almost entirely unused in this country. In the mineral kingdom, school collections could be made with very little trouble, and increased by exchange between different localities. In New England we want more observations of the direction of the glacial scratches, of the origin and distance travelled by bowlders. Such would be too laborious for one man, but very easy for a small army of youthful observers. In climatology and meteorology, — sciences which can deduce their results only from numerous and long-continued series of observations, — the field is immense, and a great many of the observations can be made without instruments, or with simply a thermometer : such as dates of freezing and opening of lakes, ponds, and rivers ; snow-falls ; temperature, abundance, or drying-up of springs ; first and last frosts, etc. Time and space will not allow us to extend this list, which is intended as a mere outline.

In conclusion, we would call attention to the projected new geological survey of Massachusetts, which will embrace most of the subjects mentioned above. The help it could receive from a school association such as the one proposed would be invaluable.

L. F. POURTALES.

HIGH SCHOOLS MUST HAVE LABORATORIES.

✓ FOR several years past an increasing disposition has been manifested by educational reformers to eliminate text-book instruction from many departments of study. The teacher, it has been said, should be himself the living text-book from whom the pupils may not only draw their inspiration but derive their knowledge. Foremost among these reformers, especially during the later years of his life, was Agassiz. In natural history, and indeed in all the natural sciences, this tendency has certainly proved a healthful one, though we are inclined to believe that some of the most ardent promoters of it have fallen into the usual errors of reformers. They seem to have forgotten that nomenclature and classification form a part of the study of the natural sciences, and that the latter of these is the most important factor of mental discipline which they furnish. They seem to have forgotten, too, that nine tenths of the knowledge which men acquire, beyond the narrow limits of their own experience and investigation, as well as an equally large proportion of what they communicate to others within these limits, is conveyed through the medium of conversation, lectures, periodicals, and books ; and that therefore it is of some importance that good models of composition in every department of study should become familiar to the pupil, that he may learn to speak and write, as well as to observe and think, in reference to the objects and phenomena brought to his notice. Now no better means has yet been devised than a good text-book, rightly used, for the acquisition of facility and correctness in speaking and writing about the subjects studied. Those who substitute the lecture for it, requiring the pupils to record and subsequently to commit to memory the substance of their remarks, merely substitute their own phraseology for that of another, and therefore use a text-book differing from the printed one only in requiring a greater expenditure of time and patience in the mastery of its contents. If what they say is worth memorizing at all, it is worth printing, in order that the work of memorizing may be facilitated. Those on the other hand, who, infatuated with the notion that blackboard instruction is the one universal method of teaching, substitute their own crude extem-

pore remarks for the carefully considered phraseology of a good text-book, and their own rough crayon sketches for the finished work of the artist and engraver, waste valuable time, and produce, at the best, only a clumsy imitation of the text-book they deride. Text-books are, it is true, insufficient in themselves. Their concise phraseology, admirably adapted for private study, must be expanded in the class-room; their illustrative cuts must be rendered more effectively illustrative by actual experiment; both phraseology and illustrations must be improved and corrected to meet the demands of increasing knowledge; but text-books must not be suffered to fall into disuse. The efforts of reformers should be directed, not to their elimination from any department of instruction, but rather to their improvement by the authors and their right use by instructors. They need to be supplemented, not supplanted, by observation and experiment. The pupil should not be required to go alone to nature, but should have the constant companionship of a competent and reliable guide.

But it is not our purpose wholly to condemn the tendency above criticised. On the contrary, the results of this tendency must be acknowledged to have been thus far salutary. Many school-books are undoubtedly imperfect, and those which are themselves excellent have been shockingly misused. Indeed it may be useful for some time longer to spur, rather than to curb, those who are in the front rank of their assailants. Accordingly, it is our intention here, while not ignoring the dangers of a too radical reform, to urge the extension of that to which the reformers have already, in no small degree, contributed, — we mean the constant association of experiment with text-book instruction.

The necessity of combining with the enunciation of scientific principles, the experimental demonstration of them, has long been recognized, and so far as the limited means placed at the disposal of school and college authorities have permitted, this twofold presentation has been generally employed. It is not, however, until within a comparatively recent period that the best method of effecting this combination has been introduced; and we are indebted, without doubt, for its introduction to the numerous graduates of our colleges, who, having studied in European universities, have brought back with them the method there

established. Until within a few years, the professors of the natural sciences in our colleges have given their instruction in the form of lectures, presenting orally to the students the general principles and laws of each science, and themselves performing such experiments as were needed to make them understood. This mode of instruction, excellently adapted as it is to meet the needs of a popular audience, is quite insufficient both for those who are themselves to become the instructors of others, and for those who, in the different departments of scientific investigation, will be called upon to perform original work. The student trained under this mode of instruction gains little more, in addition to that which the text of the lecture supplies, than ocular evidence of the truth of the principle illustrated. He is as unprepared after, as before, the experiment to exhibit to others what has been exhibited to himself. The nice adjustment of the apparatus, the state of the atmosphere as to moisture, temperature, etc., and the many other conditions which determine the success or failure of every delicate experiment, are, even if explained by the professor, scarcely appreciated by the student, and he comes forth from such training totally unqualified for the prosecution of original research. We are at last beginning to recognize the fact that scientific lectures must be supplemented, not simply by cabinets of specimens and cases of apparatus provided for the use of the instructor, but by laboratories arranged for individual work, to be performed, under competent guidance, by the student. The wealthier colleges and scientific schools are accordingly constructing laboratories, not only for the work of experts in chemical analysis, but for purposes of general instruction in all the sciences whose principles admit of experimental verification.

The present generation of teachers, however, have been educated under the old régime. On leaving the colleges and normal schools they were placed at once in the high schools and academies of the smaller towns, and, with but a limited amount of nearly worthless apparatus at command, have been required to give instruction in the natural sciences. Destitute of the proper appliances, and prevented from acquiring skill in the use of such as they have by the steadily increasing attention which the colleges have forced them to give to their classes in mathematics

and the languages, what wonder if their instruction has been imperfect! It would hardly be an exaggeration to say that two thirds of the teachers in the high schools and academies of this State, in towns of less than twenty thousand inhabitants, if placed in a mineralogical, geological, chemical, or physical laboratory, surrounded by the improved appliances for investigation in these departments, would find themselves incompetent to work without guidance. This is probably no fault of theirs. It is their misfortune to have come into service at the beginning of a transition period in methods of instruction.

It was probably in consequence of a recognition of this incompetence on the part of the average teachers in high schools, that the authorities of Harvard College at Cambridge, and Prof. Agassiz at Penikese, instituted, last year, summer courses of instruction in the leading departments of natural science. Announcements of these courses were published in the leading newspapers of New England and New York, and circulars were sent to the principals of all the high schools and academies from which the college has at any time received students. A similar announcement, and one to which those just mentioned were probably intended as a preliminary, was subsequently made by the faculty in the new requisites for admission; according to which those who present themselves for examination in Botany "will be required to give evidence that they can analyze simple specimens; and those who offer Physics or Chemistry, that they can *perform simple experiments*. Harvard has been, so far as we know, the first and only college to move in this direction; and the number of applications hitherto received for admission to these summer courses has scarcely been sufficient to warrant their introduction at other colleges. It is perhaps too much to ask that teachers, exhausted by the labors of the school year, should sacrifice their summer vacation to the study of chemical reactions and botanical analysis. If they could be induced to do this, however, for one or two seasons, they would assuredly become so dissatisfied with the defective appliances with which they and their pupils are compelled to work at home, that a thorough change in the present method of teaching the natural sciences would speedily ensue.

Every high school, then, and every academy must have a labo-

ratory, generously supplied with all the appliances necessary for individual work, before we can reasonably expect to see anything like a general improvement in the methods of scientific instruction. The additions to school furniture which such an innovation contemplates, will, it is true, be expensive; but even from a money standard the increased expense would soon be counterbalanced by a corresponding improvement in the various branches of industrial art. In view, however, of the reluctance of communities and school boards to incur undue expense for educational purposes, it is hardly to be expected that they will take the initiative in such a reform; but much may be done by individual teachers, if they will only take the matter in hand. Experience has shown indeed that those teachers whose interest in their work makes them willing to sacrifice time and money in order to avail themselves of such opportunities as those afforded in the summer courses at Harvard, acquire a wonderful influence with the more intelligent members of school boards, and that they therefore, more than any other members of the community, are likely to succeed in obtaining appropriations for such purposes. At any rate, such appropriations we must have, whoever be the movers, for by them alone can our schools be brought into harmony with the scientific tendencies of the age. J. T.

NOTE. — The following facts kindly furnished by Prof. C. E. Munroe and Dr. G. L. Goodale, under whose direction the summer courses in chemistry and botany are placed, will be of interest to the readers of the "Teacher," as serving to show the extent to which these opportunities have been utilized.

Physics. The circulars and advertisements above mentioned announced that instruction would be given in physics; but, as only three applications were made last year and none this, no class has been organized in that department.

Chemistry. During the summer of 1873 there were fifteen students in chemistry (twelve gentlemen and three ladies). Of this number thirteen were teachers, one a druggist, and one a medical student. Of the teachers, seven were from Massachusetts, and six from other States; Maine, New Hampshire, Illinois, Ohio, Wisconsin and Rhode Island each furnishing one. During the summer just closed there were sixteen students (thirteen gentlemen and three ladies). Of these, nine were teachers, eight being from Massachusetts and one from the Province of Ontario, Canada.

Botany. In botany there were last year sixteen students (ten ladies and six gentlemen), Massachusetts furnishing half of the entire number. Eight of the sixteen were teachers. This year the number of students was eighteen (four gentlemen and fourteen ladies). Of these, twelve were, or had been, teachers. Singularly enough, the applicants of the first year were all beginners, while, with but two exceptions, those of the present year were advanced students. Almost all the latter, moreover, were able to read German with facility, so that the foreign works in the botanical library could be consulted with advantage.

VERMONT DEPARTMENT.

H. T. FULLER, EDITOR.

ABRIDGMENT OF ELEMENTARY WORK IN LATIN AND GREEK.

WE have been interested in every new proposition for reducing to a minimum the time required for the introduction of students to ancient classical authors. There is no need of a prophet's eye to discern the increasing demand for opportunity to gain a knowledge of the aims and methods of scientific investigation. The air, the earth, the ocean are full of wonders and of practical lessons. The young must have time for these, and more time than has generally been allowed in the courses of study. Moreover, a considerable part of the elementary work in natural science must be done in the preparatory school, if it is done at all.

Some of our colleges, and of high grade, too, make no place for botany; and geology is often taught without the almost indispensable prerequisite of natural history. If the college curriculum cannot find room for some of these branches of study, at what other point in the earlier course of education can they be interpolated, and how shall we find room for them in the already crowded courses of study in our high schools and academies? The question is being practically answered in two ways. *First*, By the plan proposed by F. H. K., in which, after twelve to fifteen lessons in Latin or Greek grammar, the pupil is pushed forward to the classic authors, and such grammar work as is needful is taken up afterwards in connection with the reading. Now, with an older class of pupils, like those in normal schools, who have a good knowledge of English, and have already begun to reason upon the philosophy of language, this method may prove feasible. These scholars will learn language somewhat as a well-trained linguist approaches a strange tongue, — with little or no help from any grammatical classification. Exceptional forms and idiomatic usages will be almost instinctively understood, or, if not that, grasped and mastered with but slight aid from the teacher. But with ordinary pupils, as they come from district and grammar schools, and begin Latin at the age of thirteen and fourteen, the plan proposed by F. H. K. in the later numbers of

the "Teacher" is neither wise nor practicable. In the first place, such learners cannot perform, in the time he assigns, half the tasks he imposes. There is not one boy in ten, of fourteen or sixteen years, who can write correctly both the capitals and small letters of the Greek alphabet after three hours' study, to say nothing of the pronunciation.

A similar assertion may be made of the lesson proposed for declension and comparison of adjectives, and indeed of most of the others. If a teacher can give the whole three hours to such a class of pupils, testing their progress during the time of study, and pointing out the ways of classifying and remembering variations in form, then the time requisite for the preparation of a lesson may be greatly abridged; but only at one or two preparatory schools in the country have teachers so much time at their command, even for a single class each day. The next best thing, doubtless, is to take a little time at the close of each recitation to explain the best method of preparing the succeeding exercise; and this is practicable. But even with this, so long lessons as those made by Mr. K. will not be so thoroughly learned as to be fixed for any length of time in the mind of the student. *Secondly*, We are sure that such an allopathic dose of grammar as Mr. K. prescribes to be taken before any reading, is not either the most economical or rapid way of acquiring Latin or Greek, provided that the committal could be made in the time allotted. The vision of the whole would be dim. It is like asking a man to glance once at a forest, and then enumerate all the different kind of trees that grow there. *Learn only what is absolutely needful* is Mr. K.'s rule, and a good one so far, but we would supplement it by adding: *apply every grammatical principle if possible, before learning a new one*. We have tried the substance of Mr. K.'s method; we began Latin ourselves, indeed, in just that way; we began the study of Greek on the plan adopted by the modern lessons, like Leighton with Goodwin's grammar; we, moreover, have endeavored in ten years' teaching to test every reasonable method of which we heard or which we could devise, and our conclusion is, while his plan might *possibly* be adapted to his own pupils, it is not suitable for the majority of students beginning the study of these ancient tongues. The dose will nauseate or appal any but the most vigorous and determined.

F.

[To be continued.]

EDITORIAL NOTES.

SINCE the assembling of the Legislature at Montpelier, there has been broached, and considerably, though quietly discussed, a project

for a new educational régime. The chief intent seems to be to remove the present Board of Education ; and the motive is almost wholly revenge for the recent change in text-books for the public schools of the State. What plan of supervision is to be substituted in place of the present Board, we are not informed. We doubt if any plan at all has been well digested. Some prominent teachers have been consulted in regard to the project, and we are glad to know that it is quite universally condemned.

Please, gentlemen law-makers, move very slowly in any such radical reform. It is much easier to break a tool than to make one. It would be very difficult to find a system of educational direction better for the people of this State than that now existing. Grant that the Board of Education have made some mistakes, we do not believe they have intended anything but to secure the best interest and advantage of the youth of our State, and we know that they have been unjustly maligned, especially by certain adverse publishing houses.

Cannot something be done by the teachers in their State and county associations, towards the securing of a greater uniformity in the use of text-books in our high schools and academies? Many a teacher tries a book and finds it quite unsuited to his need or that of his pupils, or he is in doubt between the two or more books offered on the subject required. To such a one, another instructor's experience would be of incalculable service in assisting to a wise choice. Moreover, such public and fearless discussion of the merits of a text-book would have a wholesome influence on agents, publishers, and authors. It would raise the standard of judgment, and better books would be issued. There are some branches of study upon which a good text-book can hardly be found. This is notably the case in respect to English grammar. We note that most of the common schools in this State are using "Greene's Grammar." Unless the teachers are very careful to combine a great deal of oral exercise and illustration with the use of that text-book, the study of our mother-tongue will become simply hateful to the great majority who attempt it. If "Greene's Introduction" only were allowed to be used in district and grammar schools, we should be more hopeful of success in teaching that branch. After all, grammar and reading should be taught together. A beginning should be made early, and no text-book at all be given to the pupil till the later stage of progress.

INTELLIGENCE.

REV. J. C. W. COXE, formerly principal of the Methodist Conference Seminary, at Montpelier, and also one of the editors of this department of the "Teacher," has accepted a call to the Division Street Methodist Episcopal Church at Burlington, Iowa.

MISS ANNIE F. BREED, of the last class at the Salem (Wis.) Normal School, is teacher of mathematics in Montebello Seminary, at Newbury.

WEST BRATTLEBORO' Academy, occupying the buildings in which Glenwood Seminary was formerly located, is this year under charge of Mr. V. F. Lang, a graduate of Dartmouth College.

WEST TOWNSHEND. Leland and Gray Seminary has a new principal in the person of Prof. H. C. Robbins, who, during the past few years, has been teaching at the West, where he is well known as a popular and efficient instructor.

JOHNSON. The annual meeting of the alumni of the Normal School will be held November 6. Edward Conant, principal of the Randolph Normal School, will deliver an address upon the occasion.

At the examination of competitors for the nomination to a West Point cadetship from the Second Congressional District, Mr. Frank S. Harlow, a last year's graduate of the Springfield High School, was the successful candidate.

PEACHAM Academy, the educational cradle of Hon. Thaddeus Stevens, Oliver Johnson, and others of no slight fame in political and literary circles, has one hundred and twenty students, and its corps of teachers, headed by Mr. C. A. Bunker, is doing work worthy of the continuance of the ancestral fame of the school. We visited the region last week, and amid the glories of a wide-spreading landscape, quite envied the students who gather there their opportunities for scenic culture.

LUDLOW Academy has a goodly list of one hundred and sixty-three scholars, the largest in its history.

BOOKS.

"HARKNESS' LATIN GRAMMAR." Published by D. Appleton & Co.

An edition of this work has recently appeared, in which parts First and Second have been rewritten and revised. The principal changes concern the introduction of a plan for the Roman, or Romaic pronunciation of Latin, and the adoption of the new theories with respect to the formation of the stems of nouns, adjectives, and verbs. Prof. Harkness, however, has not gone quite as far as Messrs. Allen and Greenough, since he declines to

regard the vowel following *v* or *u* in the perfect system as a part of the stem. In this difference we incline to agree with Prof. H. The other grammar (of A and G) is not consistent with itself in the treatment of verbs.

Like all the publications of Messrs. Appleton, the typography is excellent, and the general appearance of the volume inviting.

"FRANKLIN SIXTH READER AND SPEAKER," by Geo. S. Hillard and Homer B. Sprague. Published by Brewer and Tileston.

A more attractive volume for the purpose designed has rarely found its way to our table. The publishers have done their work in good taste, and the selections are mostly fresh, and chosen with evident reference to the needs of pupils in high schools and academies. In the introductory treatise on elocution, by Principal Sprague, we are glad to see that the subject of action, and especially gesture, receives so full, and, as far as we can judge by a hasty perusal, so thorough treatment.

WE take the following from the "Portland Advertiser": —

"What Shall we Attempt in Elementary Schools?" by Mrs. A. C. Martin, is a small pamphlet in which Mrs. Martin, apparently a Massachusetts school-teacher, answers her own question chiefly by pointing out with much justice, what elementary schools (by which she means common schools, and, where there is a graded system, all below High Schools) fail to achieve. The author writes in very sensible condemnation of the practice of lumbering the brains of children with dry, unmeaning details about the thirty-fifth parallel and the one hundredth meridian, or the number and names of rivers in the United States of Colombia. She thinks too much pains is taken to train children to read set pieces with rhetorical effect, and too little attention given to teaching them to read at sight and continuously, prose or verse, in a pleasing and interesting manner. She thinks children's reading-books should not be made up of scraps. She declares that the mass of useless geographical detail, the reiteration of the rules of grammar, the year-in-and-out plodding at arbitrary rules of arithmetic, are a dead drag upon the memory, and nearly if not quite valueless for any purpose of real, vital, beneficial education. Mrs. Martin takes the position that in our common schools — the only schools indeed which the great mass of children ever enter — there is too much hard, mechanical drill, and too little real, positive achievement of knowledge which will be likely to be needed in ordinary life. She believes, with every one else who notices the matter at all, that most schools nowadays are chiefly means to the end of an "examination"; and as, of course, only certain things taught in certain ways can be made to show well at an examination, of course these things and these methods are the proper objects of attention. So long as this state of feeling exists, of course the present style of cramming on the high-pressure principle will keep its popularity. In the millennium, we may hope for better things. [Alfred Mudge & Son, Boston.]

RESIDENT EDITOR'S DEPARTMENT.

WE believe it was Mark Twain who described Harvard University as a flourishing institution pleasantly situated in the "Parker House, Boston."

It may not be generally known that the "principal" part of the grammar schools of Boston is located at the same place, once a month, and, if one may judge by appearances, pleasantly located. On the first Tuesday of October, the entertainment was given by the pedagogical Nestor, Joshua Bates, Esq., of the Brimmer School. After a reasonable feast with no flow of "bowl," the feast of reason and the flow of soul were introduced by Mr. Bates, in the remarks given below, in which he indulged in interesting reminiscences of the past, which carried some of the younger teachers back to their swaddling-clothes, and lighted up the countenances of sundry old veterans, who could hardly restrain themselves from following the example of Goldsmith's old soldier that,

*"Wept o'er his wounds, or tales of sorrow done,
Shouldered his crutch, and showed how fields were won."*

The remarks of the presiding officer, who has kindly yielded to our request in writing them out, were followed by many speeches, replete with humor, good feeling, and good sense. The substantial portion of the intellectual feast provided by Mr. Bates, will, it is believed, lose less of its flavor in being served up "cold" than the "side dishes," and we accordingly "coldly furnish forth" our editorial table with the "meats" baked especially for that occasion. It may be well to state that several circumstances combined to render this meeting of more than usual interest. The association has been in the habit of meeting the Superintendent monthly in the City Hall, and discussing matters of educational interest, and then adjourning to Parker's to digest what has been said, and sundry other good things. It has been in existence for years; but this was the first meeting in which the masters of the newly annexed territory were included. This alone swelled the numbers to considerable extent, and added to the interest. Another feature was the presence of the master of the English High School. With the exception of the master of the Girls' Normal, who, previous to his appointment to that position, was already a member of the association, we believe this was the first instance in which the high schools have been represented in the Association.

*This we regard as perhaps the most important incident connected with this occasion. It seemed to be necessary to give completeness to the system. The grammar masters have been made the principals of the primary schools of their respective districts, thus connecting those two grades, and

securing a unity of effort which previously did not exist. There is also a similar relation between the grammar and the high schools, and it seems desirable that there should be a mutual understanding between the masters of the two grades. This necessity is now recognized in our State and National associations, and their annual programmes include lectures and discussions of special interest to teachers of every grade, from the primary school to the university. At future meetings of the Association, we hope to see all the high schools of the city represented, and have no doubt it will be an advantage to our schools, and tend to prevent many misunderstandings which often arise from non-intercourse of teachers.

Another circumstance which must not be omitted, was the presence by special invitation of Mr. Philbrick; and his very cordial reception was the best evidence of the estimation in which he is held by those with whom and for whom he has been engaged for some seventeen years. Mr. P. was visibly affected by this kind expression of regard, and responded in a pleasant and fitting manner.

On the whole, it was an occasion long to be remembered by those present, marking an era in the history of the Association, and the point of a new departure which is likely to add much to its interest and usefulness.

We should be glad to repeat all the good things said on this occasion, but must content ourselves with the following interesting remarks of Mr. Bates, the chairman:—

Gentlemen of the Association: It seems quite appropriate that it should happen to be my turn to preside at this meeting, when the pleasant duty devolves on me as chairman, to introduce to this social gathering of the brethren, the masters of Charlestown, Brighton, and West Roxbury. It seems appropriate, as I am one of the oldest masters now in the city service, and, also, as I for some years was master of the Winthrop School in Charlestown, from which portion of our city most of the new members come to-night.

This is probably the last social meeting at which I shall preside; for, before my time comes round again, I shall cease to be of your number. Perhaps, under the peculiar circumstances of the occasion, it will not be considered inappropriate for me to state briefly my connection with the Charlestown schools, the condition of things at that time, and the general character of this Association when, some thirty years ago, I was admitted a member.

In the year 1833, I was elected master of the Winthrop School, Charlestown, at a salary of seven hundred dollars. All the schools were then organized on the double-headed system,—each school having a grammar and writing master. By a law of the Legislature about that time, it became obligatory on each town in this State, reaching a certain population, to establish a school where the languages should be taught. There being no High or Latin School in Charlestown at this time, it was finally decided by the school committee that the master of the Winthrop School should be appointed teacher in the classics, receiving scholars who might wish to pursue the languages, from any district in the town, and that for his services, he should

receive the additional compensation of one hundred dollars a year. This arrangement gave me about fifteen additional pupils from other districts. This order of things continued while I taught in Charlestown.

I look back, gentlemen, with much pleasure to my years of service in Charlestown. Perhaps I can safely say, that I encountered little opposition to my plans and systems of teaching, and generally met with the approbation of committees, parents, and scholars. There are memories and associations connected with those years of the past, which will live fresh and vividly with me while life lasts. I trust I did some good in that place, and that I still live affectionately in the hearts of many beloved pupils. Among the many who went out from under my teaching, to places of trust and usefulness, I call to mind in particular two men whose names and reputation are familiar to all present: Thomas Starr King and Lewis B. Munroe, of whom, if time permitted, I should like to relate some interesting reminiscences.

In the year 1844, Jan. 1st, after ten years' service in Charlestown, I commenced teaching in Boston, as master of the Brimmer School, where I have labored nearly thirty-one years, making almost forty-one years as a teacher, a longer period than is generally allotted to any one in the professional life of teaching; and yet my eyes are not much dimmed, nor my natural powers much abated.

When elected to my present position, I found this Association in existence, consisting of about thirty members,—grammar and writing masters. But where are they now? Some are scattered, many are dead; and I see only one present who was in service at the time I joined the Association. I refer to my esteemed friend and brother, J. A. Stearns.

The Association held monthly meetings, as we do now,—each master, in his turn, entertaining at his own house, or at a hotel. At each meeting some one was appointed to read an essay, or deliver a lecture on some subject connected with education, after which the evening was spent in a social way.

About 1840, the Committee of Boston introduced a system of examination, by which a comparison of schools was instituted, and such statements and statistics of the schools were published, that very soon a most unfortunate state of things took place. The natural ill-feeling often created by injurious criticism and unfair comparison of the schools by committees led teachers to be jealous and envious of their neighbors, and consequently for some time this Association was anything but a band of brothers. In process of time, the Committee abandoned this unjust and unwise system of examinations, and, the principal cause of estrangement having been removed, things gradually resumed their former condition; and for some years past, this Association has been harmonious and prosperous.

Gentlemen, may it so continue for years to come. I feel that it is the duty, as well as the privilege, of every Boston master to sustain this Association, and to take part in its proceedings and deliberations. I pity that master who, for reasons best known to himself, absents himself from these pleasant and profitable meetings. They are the life of our profession; and here we gather

in friendly consultation, fresh enthusiasm, and profitable suggestions for the month to come. From whatever else you deprive me, cut me not off from these monthly gatherings; and you will not, while these eyes can see the way and these feet can tread the path to the meetings at the City Hall, and to a seat at the festive board

Gentlemen, — I have already detained you longer than I ought to have done; and, if I have been somewhat free in the use of the personal pronoun, my apology must be, that it is the privilege of age and experience in some degree to boast of the past; and if I have mingled self too much in what I have said, I must claim the same indulgence that is granted to the worn soldier from many a battle-field, who is heard with patience, while he tells the story of his life,

"Shoulders his crutch, and fights his battles o'er."

It now only remains for me to welcome the masters of Charlestown, Brighton, and West Roxbury to the fellowship of this Association. We welcome you, gentlemen, to all the social enjoyments, practical suggestions, and, we trust, profitable information you may receive at these meetings. We welcome you to this table, where the joys, the pleasures, the satisfaction of the teacher's life should be manifested, and where the teacher in his discouragements, troubles, and anxieties should receive sympathy, advice, and a helping hand.

There is strength in union, and there is strength and profit in this Association; and, unless we cling together in fellowship and harmonious action, as a band of teachers, all our efforts in the cause of education will necessarily be discordant, belligerent, and unsatisfactory. Let us then work in harmony. Our profession is honorable, and our labors will be felt and appreciated if we are honest and faithful to duty, and united in action. Let us act together as a unit in the noble cause in which we are enlisted for life. Let us devise, mature, and carry into operation such plans as will give efficacy and success to our school system. Let us cling to the Association as our first love, advising one another, helping one another, and so consecrating our whole energies to our noble calling, that when we shall be laid,

"Each in his narrow cell,

Where heaves the turf of many a mouldering heap,"

This, the noblest of epitaphs, shall be engraven on our tombstones: Here lies the faithful, devoted teacher.

EVEN the best trained minds are not exempt from a slight confusion of ideas at times, and it is not strange if something of the kind occurs sometimes among our pupils.

We were amused by an answer given in one of our schools, not long since, to the question, "Why the Pilgrims left England?" — "Because they did not like the government of Plymouth Church."

This reminds us of the man who was searching in Chillon, for the place where "Old Byron was chained." Upon being told that Byron was not chained there, he replied with some feeling, "Vy yes, he vas, he and his two broders; and when dey died he proke the chain, and dey caught him, and put him on de island of St. Helena, and kept him tirteen year, because he would not bow to Gesler's cap."

DEVELOPMENT OF LANGUAGE.

[The following excellent paper on the Development of Language, was read before the South Boston Lady Teachers' Association, by Miss Mary Powell.]

THE importance of systematic study of language in our schools has seldom been carefully considered. There are, indeed, disputes enough as to how grammar shall be taught; but grammar is not language—it is merely a set of rules by which we gauge the correctness of our speech; the point which I maintain has been neglected, is the *systematic development* of language from earliest childhood.

Merchants have demanded that there shall be more practical methods of teaching arithmetic, and teachers have endeavored to meet the demand. Too much time was consumed in teaching elementary reading, and Dr. Leigh thought out his Phonic Method. Some one felt the need of the refining influence of music, and, accordingly, the steps in music have been made easy for little feet; and art is being pushed forward a little faster than we can bear, perhaps. The need of a system for developing language will be felt when its importance is realized, and it is to be hoped that the time is not far off when language will occupy a place *not* second to anything taught in our schools.

Language is the expression of thought; and the connection between thought and language is so close, that poverty in language is a sure indication of poverty of thought, and is an "inseparable barrier to thought either in its discovery, reception, communication, or retention. All education must be communicated through language; and the larger the child's vocabulary, the more intelligent will be his grasp of all knowledge which can be reduced to statements." Hence the importance of proper training in this direction.

All theories about the origin of language concede that the *thought element* preceded the *sound element*. Primitive man must have had the idea in his mind before he tried to express it. No matter whether it was his senses, his necessities, or divine inspiration that put it there, it must have existed. Here we have the key-note for all our teaching of language; supply material for thought, then demand its expression. This is Nature's own method; but we need not go back to the infancy of mankind for a method; we can find a similar one by watching the infants of to-day. A simple example will illustrate this. Few objects are of more interest to a young child than a kitten; how intently he will watch its gambols, and what desperate efforts he will make to get hold of it! then the mother, through the child's interest, will teach him the kitten's name; over and over she will repeat it, always in *connection with the object*, and what a proud moment it is for her when baby can call the kitty for himself! Thus instinct has taught the mother the *true* way to develop language. When the child enters school, let the teacher continue the work which Nature has commenced so well. How? Begin with conversational lessons, the children to be the principal speakers, "the teacher guiding,

questioning, confirming, and elaborating what is given." In this connection, oral lessons on the parts, qualities, and uses of objects, and in higher grades, on the sciences, are *invaluable*, because they supply *direct objects* of thought. They also help to increase the stock of words by being the occasion of using new terms, which of course the teacher will give. For instance, take the parts of a plant and its uses; such sentences as these will result from the observations of the class. "The leaves are the lungs of the plant." "The roots absorb food for the plant." "The parts of a flower are the calix, sepals, petals, stamens, and pistils." In these three sentences alone, there are at least half a dozen words that would be new to a class.

Towards the close of the Primary School course, might be commenced what is really sentence-building. It may be done in this way: Ask the children to name things they wish to talk about. If the children have been in the habit of conversing freely with the teacher, any number of objects will be mentioned. Out of these let her select six that she wants, and write them on the blackboard; then call upon the class to tell something about each object, and finally the lesson stands upon the board like this: dogs bark, horses run, birds fly, etc. The next time proceed in the same way, and get such sentences as, snow is white, the slate is hard; and, again, such sentences as, the bird has wings, the dog has ears. The result of these lessons would be that the class would give readily things to talk about, what they do, what they are, and what they have; these three kinds of sentences denoting action, being, and possession, and are the foundation of all others. Then these kinds of sentences might be compounded thus. The slate is smooth, hard, and black. The bird has wings and feet. The cat mews, purrs, and scratches.

When the children enter the Grammar School they will be able to take up intelligently adjectives, telling number, form, color, size, or any other attribute; adverbs telling how, when, or where an action is performed; the ideas contained in prepositions as above, around, below. Show that the office of participles is to shorten sentences; let the need of pronouns be *felt* by showing the awkwardness of language without them. Keep in mind that up to this point you have not been teaching grammar,—you have not even named one of the parts of speech *as such*. Your aim has been *solely* to build sentences.

When a sufficient amount of skill in doing this has been acquired, you may give the terms subject and predicate and any other you may wish. Such a course as this would be a powerful aid to composition; for if the ideas are in a mind that has the ability to put them into language, the act of putting them on paper is very simple. It would also be a help in the reading lesson by establishing a habit of inquiring into the meaning of words, and more intelligence would be brought to bear on it.

Among all the savage nations we read of, the Peruvians stand pre-eminent for the kindness with which they treated provinces which they vanquished; but in one thing they were tyrannical, and that was, that the conquered should abandon their native tongue and adopt that of Peru.

The historians' comment is, "the Peruvians had the wisdom to perceive that the bond of a common language is one of the strongest that can unite a people." Now foreign elements are being daily added to our population.

To the public school belongs the task of Americanizing these elements both in thought and language.

How can this be done, unless we make a specialty of language, and not leave it as it is now, for a teacher to take up or not as she pleases? Doubtless some will say there are specialties enough in the school without adding another. It is true there *are* difficulties in the way; and the greatest, perhaps, are those growing out of great numbers and pressure of work.

The result of such a course as is here hinted at would be, that the graduates of our grammar schools would not feel as I have known numbers of them to feel, that they have learned a set of rules to regulate what they have not, viz. language. On the contrary, they will possess minds trained to find food for thought in the commonest objects, and power to express those thoughts with ease and elegance.

In conclusion I will quote a few sentences that deserve to be called maxims.

"Create necessities for new words, then give them."

"Sift out errors one by one."

"When it is possible, get full statements."

"Encourage a child to let his speech wear its best clothes."

Last and best of all, "Supply materials for thought, then encourage expression."

JOHN AMOS COMENIUS.

[We copy the following brief sketch of the life of John Amos Comenius, with a general statement of his principles as an educator, from Hailman's History of Pedagogy, published by Wilson, Hinkle & Co., Cincinnati. It would be difficult to point to a single principle held by the most advanced educators of our day, which does not seem to have suggested itself to his mind.]

JOHN AMOS COMENIUS was born in the year 1592, at Comnia, in Moravia. His early history is obscure; it is known, however, that he attended the university of Herborn, at Nassau, where he studied theology. In 1614, he returned to his native land and became rector of a school, and, in 1618, pastor of a parish of Bohemian Brothers. In 1624, Ferdinand II banished all evangelical preachers from his realms, and Comenius took refuge at Lissa, in Poland, where he became, in 1628, member of the faculty of the academy. Here he completed his first didactic works of importance, among which the "Key to the Study of Languages" founded his reputation. It appeared in 1631, and was received with such immense applause that in a short time it was translated into twelve European and several Asiatic languages. In 1641, he accepted a call of the English Parliament to visit England, and to reform the English schools according to his principles; but civil war neutralized his efforts, and he yielded to a similar call from Sweden, in 1642, where he was more successful. Soon afterward he returned to Lissa, where he was made a bishop of his church in 1648. In 1650, he accepted the call of a Hungarian prince, to assist in the reorganization of schools, but returned to Lissa four

years later. In 1652, the Poles burned Lissa and scattered the Bohemian Brothers forever. His subsequent wanderings brought him to Amsterdam, where he was cordially received. He died at Naarden, a neighboring town, in 1671. During his stay in Hungary he had composed a remarkable school-book, entitled the "*Orbis Pictus*," which I shall have occasion to mention again hereafter.

Comenius was by no means one of those pedagogues who take up one or another single subject of instruction, or who place all good in a certain method of teaching. He was, in the very best sense of the word, universal; and notwithstanding this universality, he always strove after the most thorough foundation. The aim of education he finds in wisdom, in knowledge, virtue, and piety. He contended that all men need instruction; that all children, rich and poor, high and low, boys and girls, should be taught in school. "Not," he adds, "that each should learn every science; but all should be so instructed that they may understand the basis, relation, and purpose of all the most important things, having reference to what they are and are to become." He complained that the educational systems of his time did not accomplish this. In many places there were no schools at all, and in others only the children of the wealthy were cared for. At the same time, he condemns the methods of instruction as repulsive, tedious, and misty; and deplores the neglect of moral training, the absence of science in the curriculum, and the undue preponderance of Latin.

He proposed a system of educational institutions, consisting of four divisions: the maternal school, the vernacular school, the Latin school, and the academy.

The maternal school comprises domestic education under the mother's direction, and lasts during the first six years of the child's life. Its main care is the sound mind in the sound body. The mother must attend with intelligent solicitude to the physical welfare of her child; she must nurse it herself; guard it from all stimulants and quackery; offer it opportunities for cheerful play, for manifold observations, accompanied with simple instructions; and implant the seeds of virtue and piety.

He shows ingeniously how, already during the first six years of life, the child can and should obtain in the parental home the elements of all later knowledge. He shows how from the cradle it gradually extends the scope of its perceptions to the sitting-room, the other rooms of the house, the yard, the streets, the gardens and fields, to sun, moon, and stars; how it becomes familiar with its limbs and their uses, with animals, plants, stones, and their names; how it learns to distinguish light from darkness, day from night, colors, shapes, numbers, and sounds; how it gains ideas of longer and shorter periods of time, of the development of organic life, of human institutions; how it becomes skilled in song, language, and gestures. In short, Comenius sketches an elementary course of object lessons, of exercises in intuition, in thinking and speaking, and shows that it contains the principles of all subsequent instruction in geography, natural science, geometry, arithmetic, music, language, etc. At the same time, parents should, particularly by example,

develop correct moral feelings, and lead their children to moderation, cleanliness, obedience, and modesty.

When the child is ready for the vernacular school, the latter should present itself in a friendly, not in a repulsive light. The vernacular school, similar to our district school, furnishes instruction to the child from the sixth to the twelfth year. Comenius asks that it should teach only the vernacular language (hence its name), and that it should lay great stress upon practical education. Reading, writing, orthography, arithmetic, measuring, song, religion, the elements of history, natural science, geography and astronomy, popular instruction about trades and arts, should constitute the curriculum of exercise and study. Thus, he would make the vernacular school an institution that prepares for life as well as for the higher institutions of learning.

With reference to the latter, I would merely state that Comenius lays down for them, among others, these principles: without knowledge, rational thought, speech, and action are impossible, hence the sciences must be nurtured; avoid words without ideas; let the concrete always precede the abstract. To deal more largely with these higher institutions does not lie within our limits, and I return to his views on elementary instruction.

School, he says, is a workshop of humanity; it is to bring man to the ready and proper use of his reason, his language, and his artistic skill — to wisdom, eloquence, and prudence. Hence, its material of instruction must be valuable and comprehensible for all the children of the people, and must tend to their universal cultivation. Whatever bears no fruit in life nor enhances humanity, whatever tends to empty words and shallow mechanical drilling, is not for the school. The material of instruction must be selected with care, and treated in accordance with natural methods that agree with the normal development of children and take into consideration their manifold individual peculiarities. First, the senses are to be set to work; then, memory; and, at last, understanding and judgment. The pupil must not learn by heart what has not become his from perception or reflection; he must not speak about what he does not understand. The thing must precede the word; the example must come before the rule. In all branches, the easy and the simple thing must come before the difficult and the complex. Nor should the child receive much or many things at once, but progress gradually and continuously.

Thus, the clear mind of Comenius was already fully aware of the methodical laws which require that all instruction should be based on intuition, should be gradual, thorough, and continuous; but it was no less evident to him that all instruction must arouse and enhance the self-activity of the learner. The child, he claims, must use its senses as perceptive powers; must observe surrounding objects; compare its perceptions; form concepts, judgments, conclusions from its ideas; learn to express its thoughts clearly and fluently; and fix its knowledge, as well as improve its skill, by varied practice. In short, all the powers of the pupil must be kept in activity. Knowledge must not be given to the pupil as something finished, as something ready-made or cut-and-dried, but it must be found from its elements; or, as

Comenius expresses himself, "the teacher must not sow plants instead of seeds."

Wheresoever circumstances permit it, Comenius would lead the pupils to obtain their fundamental ideas, at least, from the direct observation of objects, or, in the absence of these, from the pictures of objects. In order to supply such pictures, and in order to fix and arrange the ideas gained by the child, he composed a book, "*The Orbis Pictus*, the Visible World; that is, the Pictures and Names of all the Principal Things in the World, and of all the Principal Occupations of Man." In spite of its many faults in technical execution and arrangement, this remarkable book exerted a wonderful influence upon the schools, and did much to diffuse more rational views upon education.

While Comenius thus gave clear directions concerning methods of instruction, he never lost sight of the disciplinary and pedagogic side of the school. He insists repeatedly that the school is not only to impart knowledge and skill, but that it must, at the same time, diffuse virtue and piety, and develop as well as strengthen perseverance, punctuality, orderliness, justice, etc. He asks for airy and light school-rooms, and considers playgrounds essential to a well-regulated school. At the same time, he deems frequent walks with the classes absolutely necessary, to render the children familiar with nature and human occupations. In short, Comenius aims not at intellectual culture alone, but at a harmonious development of the entire human being. He is a pedagogue in the fullest sense of the word.

✓ SCIENTIFIC AND INDUSTRIAL EDUCATION.

[From an address of Pres. White, of Cornell University, upon Scientific and Industrial Education, and the true policy of the National and State Governments in regard to it.]

I MAINTAIN that, of all utterly undemocratic things and of all unrepublican things, that system is the most undemocratic, the most unrepublican, which allows a dead testator to put his hands forth from his grave and keep them clutched about your systems of instruction. All over the country you see colleges held down from the fact that some man in his will, fifty or a hundred years ago, attached certain conditions to his bequest which are now outgrown. I maintain that it is utterly unworthy of a republic to allow such control over its institutions by men in their graves. The true way, the manly way, is for the people of the United States to provide for the education of the people of the United States. It is far better to go at this work in such a manly way, than to rely upon what can be wheedled out of individuals and then allow them from their graves to control the system.

Again, I maintain that you cannot have a healthy public-school system without a system that includes the idea of a continued and gradual progress to this advanced education. I hold that the nation ought to provide for a system of education that should include all instruction, — primary, secondary,

industrial and scientific, and general. I am aware that some objections are made to this. One objection comes from the *laissez-faire* school, who say, "Let things alone; all will be well enough." I do not discover that; I discover that, if things are to go on well in a generation, they must be taken care of by the common-sense of that generation. Still, I am a believer in the *laissez-faire* school within its legitimate limits. But what are those limits? For anything which touches the cupidity of men, their pride, their desire to build up fortunes for themselves and their children, you may rely safely upon individual effort. But where great public interests are involved; where the security of the country is involved; where there are considerations which individuals do not so strongly feel, embracing interests that stretch far beyond the life of any individual, you have no right to rely wholly upon individual aid; you must rely upon national and State aid.

Then, too, there is an economical objection. It is said that such a system costs too much. Does it? I believe it will be seen that *the want of it* is what costs too much. It is the want of instruction in these technical departments which costs. But for the fact of Mr. Clarence King's report upon the great diamond bed swindle, that one operation would have involved the loss of more money than the entire endowment of all the national institutions for general and industrial education.

But that is not all. You talk of economy. If you will go into any of our State legislatures you will see a most curious system of ethics in regard to dealing with public institutions. If asked for money to found an asylum for idiots and lunatics, or the blind or deaf and dumb, you will find our legislatures ready to build palaces for them, and to grant every provision for giving them the best lodgings, the best fare, the best ventilation, and all the conveniences of modern civilization. Millions of dollars are lavished upon your idiots, and deaf and dumb, and blind; and glad am I that it is done; but when you come to ask aid for the development of the young men on whom our civilization is to rest, for the proper care of the young men who are to make or mar the future of the country, there is nothing to be had for them. The future makers of your institutions and laws are left to poor diet, to live in the most wretched buildings. I do not know a college that has good ventilation; this is reserved for your idiots and others of a similar class. I maintain that the system is wrong. "These things ought ye to have done, and not to have left the others undone." Depend upon it, it is a great mistake in our civilization.

Then comes the argument of the demagogue, that advanced education is for the rich and not for the poor. Shallow as the argument is, it is worth looking at. Your rich man can send his son anywhere, — to Europe if he will. If there is any class upon whose prosperity this system tells, it is that great, wide-spread, hard-working poor class; that great majority of poor men, whose sons are to do the work of future generations.

One objection more. Whenever a comparison is made with foreign institutions, it is said that foreign institutions are old and ours are new. That is

a wretched mistake. The great majority of the leading scientific and industrial schools of France and Germany are of recent creation. They are more recent than almost any of our great colleges and universities. Those great schools at Berlin, Carlsruhe, and Dresden, and those in France for the most part, are comparatively new schools.

And, finally, it is said there is something dangerous about scientific education. Can this be so? Is it true that dealing with the revelation of God in nature is calculated to do harm to any man?

Among the many striking passages in Herbert Spencer's *Treatise on Education* is one of special interest on this point. He asks, What would any author think, were a person to come into his presence, praise his works, and dwell upon their beauty and perfection, when the author knew that this flatterer had never read a single page or even a single line of them? And what, then, must the great Author of all things think of those who come into his presence, extol his works in all moods and tenses, the great Author knowing that this flatterer has never studied out a line in the great book of nature; nay, that he has discouraged others from studying it?

But an objection of another sort is raised. It is said, why give instruction in classical branches at all? I answer, for three reasons: First, because the act of Congress does not allow us to exclude them; secondly, because to those who wish them they are an excellent means of culture; thirdly, because we wish to avoid that old mistake of separating industrial and scientific students from classical students. Heretofore students in science and technology have been banished to some little special college in some remote corner of a town or State, while classical students have had all the prestige arising from connection with large and thoroughly-equipped institutions. We stand upon the principle of considering one student the equal of another—the student in science and industry the equal of the student in classics. We stand against any separation which shall serve to perpetuate that old subordination of men in the new education to men in the old.

But it is objected that the new system does not provide for mental discipline. Never was charge more absurd. Discipline comes by studies that take hold of a man and of which he takes hold. Is it not evident that the new system, which adapts studies to the tastes and aims of men, is more sure to take hold and be taken hold of than the old system, which grinds all alike through the same processes and studies?

And, finally, it is objected to the "new education" that it is "godless." There is nothing new in this charge. It has been made against every great step in the progress of science or education. And yet it has certainly been found that, although ideas of religion are changed from age to age, the change has tended constantly to make these religious ideas purer and nobler. The majority of the fathers of the Papal Church held the new idea of the rotundity of the earth to be incompatible with salvation. Martin Luther thought Copernicus a blasphemer for his new idea that the earth revolves about the sun, and not the sun about the earth. Dean Cockburn declared the new science of geology a study invented by the devil, and unlawful for Christians.

When John Reuchlin and his compeers urged the substitution of studies in the classics for studies in the mediæval scholastic philosophy, their books were burned, and they themselves narrowly escaped the same fate.

No, my friends, every study which tends to improve the industry of mankind makes men nobler and better. Every study which gives man to know more of the history of his race gives him to see more and more clearly the finger of Providence in history; every study which brings his mind into contact with the thoughts of inspired men as exhibited in our literatures builds up his manliness and his godliness; and every study which brings him into close contact with nature, in any of its fields, not less surely lifts him "through nature, up to Nature's God."

NEW ENGLAND EDUCATIONAL INSTITUTIONS. — The Commissioner of Education, in reviewing the statistics of higher education in his forthcoming report, says of New England educational institutions: —

In the six New England States, the city high schools are preparing 664 students, the academies are preparing 985 students, and the special preparatory schools and preparatory departments 2,586 students, while the colleges themselves are preparing only 40.

In other words, the academies of New England are preparing 3,571, or more than 83 in 100 of students being fitted for superior classical instruction. The case is very different in other portions of the Union. For example, in the States of Ohio, Indiana, Illinois, Michigan, and Wisconsin, the city high schools are preparing 1,213 students, the ordinary academies 791, other preparatory schools 731, and the preparatory departments of the colleges 9,472; that is to say, 12½ per cent of this work is done by the academies and preparatory schools, and 77½ per cent by the colleges themselves; only about 10 per cent are preparing in the city high schools. It thus appears that out of every 100 students preparing for college in New England, the colleges of New England are only burdened with the care of 1, while 83 out of every 100 students preparing in the Northwestern States mentioned must be drilled by the colleges.

It is obvious that until institutions of secondary instruction are able to supply a sufficient number of prepared students to the colleges, or until the city high schools regularly give opportunity for acquiring the rudiments of classical training, American colleges in the West and South must directly or indirectly prepare at least 75 per cent of their students. Of course there are exceptional cases in which this necessity does not exist; but this burden on secondary instruction borne by institutions chartered as colleges, though unavoidable under existing circumstances, is nevertheless a very grievous one. Such a condition of affairs tends to a low standard of scholarship in the colleges, impairs the energies of the teachers, and fails to arouse and foster a love of high and thorough culture among students.

Of the 949 students in New England reported as preparing for scientific colleges, 165 were in city high schools, 768 in academies and special preparatory schools, and 16 in preparatory departments of colleges; while in the Northwestern States before mentioned, of the 1,278 students thus preparing, 489 were in city high schools, 497 in academies and special preparatory schools, and 292 in preparatory departments of colleges.

[The following remarks by Mrs. Martin, on "Reading" in our schools, were omitted in our report of her lecture, at Detroit. The suggestions contained in them are certainly such as to render them worthy the attention of teachers.]

As to Reading, shall I startle you if I say that, take it for all in all, our pursuit of Reading, *as an art*, has been a failure?

"The blindest defender of the existing state of things will not maintain that it is possible to teach rhetorical reading to children under fifteen; and if you believe that we succeed in the humbler branches of the art, let me ask as a test, How many boys and girls of fifteen and under, do we each know, who could read at sight, intelligently and agreeably, for an hour, one of Scott's novels, or the last "Atlantic," or the leading editorial in the morning paper? Or, to put the question in another form, have you ever had occasion, as I have had more than once, to seek for a reader for an invalid or a blind person? If you have, you will, I am sure, admit what I have said, — that for the great mass of our school-children (and you may even include the High Schools), the teaching of reading, as an art, is a failure. The true test is not the ability to read a set piece with rhetorical effect, but the power to read at sight and continuously, without effort, prose or verse within the capacity of the reader's understanding. We are not likely to mend our ways in this respect until the reading can be made the means of mental development, — not a parrot-like imitation of any teacher, however skilled in elocution.

What the children read now, you know as well as I, — too often the weak dilutions which pass under the name of "children's literature," while the best of the "reading books" is but a scrap-book. The scraps may be of purple and fine linen, of scarlet and cloth-of-gold, but they are scraps still. Can we wonder that the child, to whom we have shown only shreds and patches, has no conception of the royal robes that genius wears?

INTELLIGENCE.

BOSTON. — The Dudley School-House, in the Highland District, was dedicated Oct. 28, by appropriate and interesting exercises. This beautiful and commodious building combines all the excellences of the most approved modern school edifices, and we know of no school-house in the State where ventilation is so well provided for. The following description will give some idea of the extent and accommodations of the building. Such school buildings are at once an evidence of material prosperity, and of a wise and just appreciation of the value of popular education.

The plans for the building were prepared by Mr. Louis Weissbein, and the edifice has been placed upon a lot of 27,000 feet, and is two stories in height, with a basement and French roof. The exterior walls are of face brick with light stone trimmings. There are three spacious entrances to the house, with three flights of stairs to each story to correspond. The ground dimensions are 94 by 140 feet in the extreme. The basement is only partly below ground, as the top of the first floor is $4\frac{1}{2}$ feet above the level of the lot. The basement, 94 feet high, is finished, and contains a dry and comfortable play room, engine and fuel rooms, and water closets; these latter are constructed after the most improved patterns for comfort and convenience. Through the length of the stories above runs a hall 16 feet wide, with 12 feet wide staircases at each end.

There are three school-rooms, 28 x 32 feet on each side of the halls, of the first and second stories. In the French roof are two more school-rooms, and a fine exhibition room capable of seating nearly 800 persons. The school-rooms are $13\frac{1}{4}$ feet high, and the exhibition hall $16\frac{1}{2}$ feet. The building has been excellently ar-

ranged for light and ventilation, and contains all the latest and best improvements, such as steam, electric bells, etc., and has cost in the neighborhood of \$110,000. The style of architecture is modernized gothic; and the house, with its tower for a fine alarm bell, presents an imposing and handsome appearance. All the exterior ornamental work above the brick cornice is of galvanized iron, and the building is thoroughly fire-proof above the boilers. The ventilation has been admirably arranged, and gives a pure current of air at all times in the different apartments. The halls are lighted on three sides, and there are two sky-lights.

The various rooms are embellished with pictures which have been presented to the school by its friends. These include portraits of ex-Mayor Gaston, the late Joseph Dudley, George Washington, Abraham Lincoln, Sumner, Webster, Mayor Cobb, ex-Mayors Otis and Lewis, and other photographs presented by Whipple and Black.

WE commend the following to the attention of manufacturers in all our cities and towns, and hope they will follow the example of Messrs. Blake & Co. in their several localities.

"The Free Evening Drawing Schools, supported by the city, will open for the winter on the first Monday in November. These schools are largely attended by mechanics, to whom practice in object drawing is a matter of the utmost importance. In Europe such schools are fitted up with models of all kinds, suited to the needs of machinists, wood carvers, and persons studying all sorts of trades, who, by their aid, learn to draw details of construction intelligently.

Such knowledge is much more readily acquired, and of a vastly more practical character than that obtained by drawing from flat copies, which, though excellent in their way, leave the mechanic uncertain upon many points which he must

know before he can make good working drawings, or proceed to invent machines and originate designs. It is because this fact is not fully recognized in this country that our Industrial Schools are inadequately supplied with models, without which they cannot afford such advantageous instruction to those who frequent them as is to be desired, or so fully accomplish the objects aimed at by the city in freely opening them to all comers, as could be wished. As the heads of great manufacturing establishments have a direct interest in the thorough education of mechanics and artisans, in proportion to whose skill the quality of all manufactures will be raised in Massachusetts, and the profits arising from them be proportionally increased, the Drawing Committee ask them to aid in supplying the schools with what they so much require by contributing such objects as valves, mouldings, wood carvings, screws, bolts, casts, pieces of pottery, patterns of wall papers and carpets, and various details of machinery. Messrs. George F. Blake & Co. have headed the list of contributors, and it is confidently hoped that their liberal example will be followed by other important firms."

CAMBRIDGE. Mr. Francis Cogswell, late master of the Putnam Grammar School, East Cambridge, has been appointed superintendent, and has already entered upon his duties.

This is a well-merited compliment to an excellent teacher, and one who possesses the requisites in a high degree for a successful superintendent.

The appointment gives great satisfaction to his fellow-teachers, and to the community at large, in which Mr. C. is held in high esteem as a teacher and man. The following item, which we clip from the "Journal," bears witness to the justice of our remarks:—

"*Reunion of the Putnam Grammar School.* Harugari Hall, East Cambridge, was the theatre of as pleasant a gather-

ing last night as is often chronicled. Shortly after the election of Mr. Francis Cogswell, late head-master of the Putnam Grammar School, to the position of Superintendent of Schools, a number of his pupils, past and present, conceived the idea of a reunion of all his old scholars with those now in the school, which should be in a measure complimentary to himself. Last night the design was carried out, a large number of the pupils of the school gathering at Harugari Hall. A "Song of Greeting," written by Maurice D. Clark, one of them, opened the exercises. Babson S. Ladd, of '62, delivered the preliminary address, and Miss S. M. Burnham read a brief history of the school for the past twenty years.

"Miss Emma Vogl then presented to Mr. Cogswell, in behalf of the pupils, old and new, a beautiful gold watch, chain, and seal. Mr. Cogswell responded briefly, accepting the gift. He was followed by Mr. William Savage, who presented also, on behalf of the pupils, a valuable box of geologic specimens, with a large microscope, to Miss S. M. Burnham, one of the oldest and most popular teachers of the school. Brief speeches were made by Dr. Taylor, E. B. Hale, Rev. H. K. Pevear and others. A letter from Chas. J. McIntire was read, giving a record of the connection of the graduates of the school with the army, after which supper was served in the upper hall, and the remainder of the evening passed in a social way. The music for the evening was under the direction of George H. Monroe and N. Lincoln."

We are glad to see that the vacancy caused by the promotion of Mr. Cogswell to the Superintendency, has been filled by the appointment of Mr. J. S. Barrell, as master of the Putnam School.

From an acquaintance of some years with Mr. Barrell, and the testimony of those who have had the best means of judging of his merits as a teacher, we are confident the school under his instruction will maintain the high character it has attained under Mr Cogswell.

Books.

THE POEMS OF VIRGIL, Vol. I. Containing the Pastoral Poems, and Six Books of the *Æneid*. Ginn Brothers, Boston, 1874.

Messrs. Allen & Greenough have already done such excellent service to the cause of classical scholarship in their admirable editions of Cicero's Orations and De Senectute and Sallust's *Catiline*, as well as in their Latin Grammar, that we are almost ready to say, without investigation, of anything that comes from their hands, it is the very best of its kind. On examining this edition of Virgil, we find that it possesses the same general excellences that we have before noticed in the works above referred to. The notes are clear and concise, in a remarkable degree free from all long-winded explanations, useless details, and stilted translations. We hardly know where else to find so much and so useful matter in so little space. The average school-boy will be glad to use all these notes, and teachers may be assured that he will be only benefited by so doing.

The second volume will contain the rest of the *Æneid*, with the *Georgics* and the *Minor Poems*.

THE THIRTY YEARS' WAR, 1618 to 1648.
By Samuel Rawson Gardner. Published by Scribner, Armstrong & Co.

This is another volume of "*Epochs in History*," two of which we noticed in our last.

The first chapter on the Political Institutions of Germany, and the causes of the Thirty Years' War, we have read with much interest. It is the best statement we have seen of that nation, with "no really national institutions," and whose emperor and Diet were merely the

semblance of an English king and Parliament. Its geography has puzzled the brains of school-boys beyond measure, and its history has lacked the unity necessary to give it vital interest.

The author has sought unity "in the growth of the principle of religious toleration as it is adopted or repelled by the institutions under which Germany and France, the two principal nations concerned, are living"; and we confess that we have been greatly aided by keeping this principle constantly in view. The style of the narrative is clear and interesting, and the author writes with a fulness of knowledge which takes from it all appearance of being the work of a historian skilful only in the use of "paste and scissors."

THE BUILDING OF A BRAIN. By Edward H. Clarke. Published by James R. Osgood & Co.

This sequel to Dr. Clarke's "*Sex in Education*," which elicited so much discussion on the question of the co-education of the sexes, is the substance of a lecture before the National Educational Association, at Detroit. The book, however, contains more than was read there, "exhibiting facts and statements derived from various sources, which are intimately connected with the subject of the address," and which the doctor uses "to indicate and illustrate the error in our American system of female education."

This book, like the first, will undoubtedly have an extensive circulation. Certainly those who listened to the doctor's admirable address will not be satisfied without a copy of what they heard, with the additions here made. It is a model of style,—direct, clear, and terse. The

doctor seems entirely undisturbed by the attacks on his previous work, calm in assurance that the physiological grounds on which he based his opinions are correct, and finding additional proof of the correctness of his views, in the experience of eminent medical practitioners and distinguished educators.

SHAW'S NEW HISTORY OF ENGLISH LITERATURE. Prepared on the basis of Shaw's Manual. By Truman J. Backus. Published by Sheldon & Co.

We acknowledge our great indebtedness to "Shaw's Outlines of English Literature," as one of the first and best manuals we ever had occasion to use. The work, as rewritten by Dr. Smith, and thoroughly tested, has now been thoroughly revised by Professor Backus. What was before an excellent book, has thus been greatly improved, and made more attractive; and while we have a "fuller discussion of Old English and Middle English Literatures," and "references to the best collateral reading upon the topics considered," the essays upon representative authors, as Chaucer, Spenser, Shakespeare, etc., are printed in "a conspicuous manner," indicating their rank, and calling special attention to them as the representatives of different periods, and different departments of literature.

The "Sketch of American Literature," by Tuckerman, is retained, as revised by him in 1870;—the professor "being unwilling to tamper with an essay, so elegant in its style, and so discriminating in its thought."

WORD PRIMER. A Beginner's Book in Oral and Written Spelling. By Wm. Swinton. Published by Ivison, Blakeman, Taylor & Co.

The author calls attention to the fact that the lessons are "exceedingly short." This is certainly a good point. To give children twenty or thirty words at one time, and expect them to remember any of them distinctly, is unreasonable.

"The grouping of the words according to leading ideas," and selecting "common words," are also means of interesting pupils. By spelling words only which convey some idea, the exercise is relieved of the mechanical drudgery of arranging a half-dozen or more letters in an arbitrary form, which, so far as the pupil is concerned, is utterly meaningless.

We think spelling should be learned by instalments, — new words being learned as the pupil begins to use them. We don't like putting words *spelled* wrong before the eye of the pupil, as on pages 83d and 90th; nor incorrect expressions in a "language lesson." We prefer that pupils should never *see* an example of bad grammar, and wish that some means might be invented by which they would never *hear* one.

SLATE EXERCISES IN NUMBERS. For Primary Schools. With Suggestions for Oral Recitations. By A. M. Rice. Published by H. Reede, Springfield, and Nichols & Hall, Boston.

This little book is intended for use with the youngest pupils in our primary schools. It is the method of a teacher who has had unusual success in securing "accuracy and rapidity," in the simple operations upon numbers. As the work of an earnest and successful teacher, it is worthy of examination and trial.

MODEL FIRST READER. Sentence Method. By J. Russell Webb. Published by George Sherwood & Co., Chicago.

Among all the First Readers we have seen, we know of none more attractive than this. The illustrations are beautiful, and its arrangement is more in accordance with our idea of the method of teaching reading than any we have seen. We would combine the "word method," the "phrase method," and the "sentence method."

This is done, to some extent, in this book, but we would go a little further. We would never require the pupil to pronounce the indefinite "a" or the

definite "the," except in connection with the word to which it stands in the relation of an unaccented syllable; and we would never allow a pupil to read a sentence until he can take in, with his eye, and utter at once, the several phrases of which it is composed. We are not certain that it would not be well in a First Reader, to space the phrases, so that the child might get the *habit* of reading by phrases at first. This book certainly is an effort in the right direction, and we heartily recommend it to teachers.

MONROE'S FIRST STEPS IN SPELLING. By Lewis B. Monroe. Published by Cowperthwait & Co.

This book is beautifully illustrated, and contains words so classified as to furnish an introduction to orthoëpy as well as orthography. No *rules* are given, but the words are so arranged as to *suggest* rules both in spelling and pronunciation. The same may be said with reference to the formation of certain plurals, and the past tense and present participle of verbs. It will be a favorite with good primary teachers.

BOOKS RECEIVED.

FAST FRIENDS. By J. T. Trowbridge. With illustrations. Published by Jas. R. Osgood & Co.

HAZEL BLOSSOMS. By John Greenleaf Whittier. Published by James R. Osgood & Co.

SCIENCE PRIMERS. Physiology. By M. Foster. With illustrations. Published by D. Appleton & Co.

A SCHOOL HISTORY OF GERMANY; FROM THE EARLIEST PERIOD TO THE ESTABLISHMENT OF THE GERMAN EMPIRE. With one hundred and twelve illustrations, and six historical maps. By Bayard Taylor. Published by D. Appleton & Co.

MANUAL OF ARITHMETIC. By Wm. G. Peck. Published by A. S. Barnes & Co.

MANUAL OF MYTHOLOGY. Greek and Roman, Norse and Old German, Hindoo and Egyptian Mythology. By Alexander S. Murray. Second edition. Rewritten and enlarged, with forty-five plates. Published by Scribner, Armstrong & Co.

SACRED DRAMAS. By Rev. James Boxer. Naaman the Syrian. The Finding of Moses. Jephthah's Daughter. Published by Lee & Shepard.

ELEMENTARY LESSONS IN HISTORICAL ENGLISH GRAMMAR. Containing Accidence and Word Formation. By Rev. Richard Morris. Published by Macmillan & Co., London. Lee & Shepard.

SUNNY SHORES; OR, YOUNG AMERICA IN ITALY AND AUSTRIA. A Story of Travel and Adventure. By Wm. T. Adams (Oliver Optic). Published by Lee & Shepard.

LECTURE NOTES OF QUALITATIVE ANALYSIS. By Henry B. Hill. Published by G. P. Putnam's Sons.

THE ACT OF READING MUSIC. For the use of Public Schools, and private pupils. By Mrs. Laura B. Humphreys. Published by J. W. Schermerhorn.

A LECTURE ON THE PROTESTANT FAITH. By Dwight H. Osgood, N. Y.

INTRODUCTION TO ALGEBRA. By Edward Olney. Published by Sheldon & Co.

THE AMERICAN EDUCATIONAL MANUAL. A Cyclopaedia or Reference Book for all Matters Pertaining to Education. Vol. I. Published annually, by J. W. Schermerhorn & Co.

ELEMENTARY GEOGRAPHY. Taught by means of Pictures, Maps, Charts, Diagrams, Map Drawing, and Black-board exercises. By James Monteith. Published by A. S. Barnes & Co.

THE MASSACHUSETTS TEACHER.

[J. W. DICKINSON, Editor for December.]

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PRIVATE AID TO THE HIGHER PUBLIC EDUCATION.

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THE recent discussion of the higher public education has demonstrated, with unmistakable emphasis, that the primary and superior schools, in our American system, must stand or fall together. The pronounced enemies of the high and normal schools and the state university, are also the friends of the rugged school notion of primary education that the masses of the people should receive sufficient public instruction to fit them for their "position in life"; it being assumed that here, as abroad, the children of the laboring class will walk in the track of their fathers. This crusade, alike against a generous primary school training and the support of higher institutions of learning, by the State, is made either in the interest of a sectarianism which desires to monopolize the superior teaching of superior youth; or a social or learned aristocracy which yearns to hold on to its present eminence; or the ambition of a few great colleges to reach the position in American education occupied by Oxford and Cambridge in England; or a political reaction that thrives only upon the ignorance of the "common people." It is well that the discussion has come, and that the whole system of superior public instruction has been assailed by its ablest opponents. The verdict is practically recorded, and the people have decided to

retain the present American system of schools ; going on, in a wise spirit of progress, to complete the edifice rather than tear down the upper stories and roof in the basement.

But, now this is decided, a new difficulty appears, in respect to the adequate support of this class of schools. It is very easy for a village in Massachusetts or Ohio to vote to establish "a first-class high school." It is a tolerably easy achievement to raise a local demand for a new normal school, and obtain from the Legislature a grant to place a school building on the ground. And, by persistent lobbying, even such establishments as art-schools, museums, and technical seminaries of various sorts can be launched. The National Government has enabled every State to go into the enterprise of a State university ; in some cases, to attempt a double-headed collegiate system of literary and industrial education. But all these schools are expensive. The cost of the higher education increases yearly, with the demand for increased breadth and thoroughness, and competent instruction. And already the strain has come, and the friends of our high, normal, and technical schools, and State universities everywhere, are anxiously looking about for the additional "sinews of war."

It is a significant fact that hardly a State normal school in the Union is now able to offer salaries competent to attract the leading educational ability of the country to its service. Several of them are under the supervision of admirable principals ; but these men are serving the State at a constant sacrifice of personal interest, and are compelled, often, to crushing overwork, for lack of competent assistants. The difficulty in the high schools is even greater.

Few of our smaller towns are willing to be taxed to bring into the high school the corps of instructors absolutely essential to its success. The inferior work that these institutions are thus compelled to do, tells against them before the public, and is paraded by the private and sectarian corporations which are interested in the failure of the whole public system. And there have been warnings sufficient to remind the most ardent friends of the State universities that they are all at the mercy of a political partisanship which may put them on starvation rations on the slightest pretext.

We fear it is not easy to create the immediate public opinion necessary to secure the adequate public support to these higher institutions of learning, demanded by the spirit of a progressive education. Especially do schools of this sort need permanent endowments, with a steady income, to ensure them against the feverish state of agitation into which they are cast every year by their pecuniary necessities. The normal schools of New York are forced to a bitter warfare in the Legislature every winter by the efforts of a crowd of local and sectarian academies to divide the State funds for training teachers. The most famous of these schools, which sends its graduates to every State, and is the mother of the training school, is now officered by a devoted corps of superior teachers, who work on salaries disgracefully small, and their subordinate instructors are hardly paid more than the primary school mistress in our cities. This state of affairs cannot endure without driving from these posts of public higher instruction the majority of their first-rate officials, and calling to their places that class of greedy, pushing, superficial, and showy adventurers who besiege the lobbies of our boards of education, and well know the secret of "button-holing" the "fathers" of the State.

The relief in this dilemma must come, as it already is coming, in some quarters, from the supplementing of the public tax, by munificent private gifts of permanent endowment. What Cornell has done in New York, and McWicken in Ohio, and other large-minded friends of public education in other parts of the Union, must be far more extensively repeated, till a stream of private aid, sufficient to place all these institutions on a permanent basis, is secured.

There is no way in which the wealthy friends of education in Massachusetts could so effectually help our State system of schools as by the permanent endowment of our five normal schools. It is becoming more apparent every day, that we must rely on these schools for the training of our superior teachers; especially for the preparation of superior young women competent to handle the training schools, which so many of our large towns are opening for the instruction of primary teachers. A hundred thousand dollars, placed under each of these schools, as a permanent endowment, would inaugurate a new era in their

development. It would then be possible to attract to them the most famous instructors in departments now at the mercy of such talent as can be secured at a thousand a year. The large plans of their accomplished principals and wisest friends could then be developed, and our State become once more the leader in the new era of public education. No year passes when large sums of money are not bestowed by wealthy individuals, in the towns where these schools are located, upon sectarian colleges or private schools, — too often to bring into life a new establishment uncalled for, and only to be sustained by the incessant importunity of its interested friends. How much better could a portion of these funds be devoted to the normal schools which have already become the pride of Westfield, Salem, Framingham, Bridgewater, and to the new school at Worcester.

The same munificence will place our high schools on a foundation from which they cannot be moved by political, sectarian, or social estrangement. Our public libraries, which are a vital part of our American system of education, also need this underpinning. And few investments, in the present distracted state of our lecture system, would be of more permanent value than an ample endowment, attached to the high school of every city or village, for superior courses of free lectures, on topics of permanent interest to the public. The "Lecture Agency" has changed the original "Lyceum" of the American people to a grand public show, from which the wisest and most useful of our public lecturers are crowded away. At the same time, there never was such need of a higher class of public lectures, by superior men, as to-day. These agencies of the higher culture can thus be placed on foundations which will enable them to do in fact, what they now so seldom do except in name: bring a really free superior education to every locality, and tempt every youth of superior ability to develop his gift for the service of the state and the good of mankind.

We believe, if the influential friends of public education, while never relaxing their efforts to educate the whole people up to a willingness to be taxed more amply than now, would make this a prominent point in their appeals, a great stream of wealth might be turned in this direction. Certainly, the ambition of that class of rich men who wish to leave their name to some good

establishment, might be most laudably gratified by giving the name to a department in a free high, normal, or technical school, a public library, or course of lectures, which would be a permanent benefit to all generations. Private gifts for education of the sectarian or private sort are so often swamped in obscurity that they seldom redound to the credit of the giver. America is full of little, obstinate boards of trustees, watching jealously some educational fund, totally inadequate to secure the object of its giver ; only kept before the public by a constant diversion of interest from public education.

The fear that such gifts will be wasted by the local governments of cities, or the legislatures of States, perhaps deters many from making them. But we believe that instances of such misappropriation are rare, compared with the petty and wasteful use too often made of the endowments for private colleges and schools. *There is no guardian of educational funds more reliable than an intelligent people*, and to such guardianship may our men of wealth with confidence intrust the means of bringing the advantages of a truly superior education to every American child who has the ability and ambition for the work it demands.

A. D. MAYO.

TEXT-BOOKS.

SHALL we teach our pupils by presenting to them *objects* of *thoughts*, or by presenting the *signs* of these objects ?

1st. What is teaching ?

That we may answer this question, two terms must be illustrated and defined. The terms are *cause* and *occasion*. If an object as a mineral is brought into the presence of the mind, the mind will think of the object. That is, the mind will produce a mental state called thinking. That which produces anything is called the *cause* of that thing.

Thinking, or that which is produced by the cause, is called an effect. The mind cannot think unless it has in its presence, by presentation or by representation, some object of thought. The presence, then, to the mind, of some object of thought is necessary that the cause "that is the mind" may produce an effect, that is, thinking. The presence of the object may be

called a condition necessary that the cause may produce an effect. The condition necessary that a cause may produce an effect may be called an *occasion*.

The mind itself is always the cause of its own activity.

The occasions of its activity are objects of thought brought into its presence.

Presenting occasions to the mind for mental activity is *teaching*.

It is the duty of the teacher to prepare proper occasions of thought for his pupils, and to bring these occasions in a right manner into the presence of their minds.

By occasion, or object of thought, is meant anything of which the mind may think.

Teaching should excite mental activity; but as mental activity produces knowledge, knowledge in turn excites activity, so teaching should have for its object activity and knowledge.

What are the proper occasions for the teacher to present to his pupil, that the pupil's mind may be led to think so as to acquire knowledge? An answer to this question is found in a knowledge of the human mind, or of the laws that determine the way in which the mind acts.

I wish my pupil to know of the form of an orange. He has never had an idea of such a form awakened in his mind. The only possible way by which he can become conscious of this particular form for the first time, is by having an object possessing this form brought into his presence.

What is true of the form of the orange is true of every object of which the mind may desire to think.

Subjects of thought, or those objects of thought found only in the mind, must be taught by the same method used in teaching external objects.

I wish my pupil to study the activity of the will. As the activity of the will is in the mind, it may be called a subject of thought.

The pupil can never learn of the activity of the will unless he is made conscious of the activity of his own will. On this account I should commence to teach the phenomena of willing, by leading the pupil to exert his own power of willing, and then to turn his attention to his own state of mind as the subject of his thoughts. Unless I teach in this way my teaching is in vain.

There can be but two occasions for knowledge.

1st. The presence to the mind of the objects and subjects of knowledge. 2d. The presence of the signs of that knowledge.

But signs can never be signs even until the thing signified is known.

Text-books are books in which the principles of a science are attempted to be unfolded. Reading-books, spelling-books, books of problems, books containing language to be translated and analyzed, are not text-books. Text-books proper can contain nothing but the signs of knowledge. Therefore the ability to use a text-book at all, presupposes that the knowledge described in the book has already been learned.

Words, then, can never be original sources of knowledge ; but they may be so constructed that they will describe, in a logical order, the knowledge we already possess and so enable the mind to return to the object and to discover relations that would not otherwise be found. Language may also direct us where to look for the facts we desire to know.

By an actual observation of many mountains, and by a generalization of the qualities we find common to those we observe, we may form the general notion we call mountain.

A book may inform us now that there are mountains in Switzerland. We may then go to Switzerland and find objects possessing those common qualities that we have before known, and named mountain, but we shall find more than mountain, we shall find the *Alps*, which, as individual objects, we never before knew, and which we could never know until we should see them with our own eyes. In this case the book suggested to us the place where our objects of study might be found. On account of the facts that books can suggest to us a proper arrangement of our knowledge already acquired, and also where objects of study may be found, books may be used for reference.

But because language, from the nature of the case, can never be the original source of knowledge, there should never be any text-books; that is, books designed to take the place of objects and subjects of thought. The teacher must always bring these before the minds of his pupils by an actual presentation of them. At this point one may object by saying that some objects we teach cannot be brought into the presence of the pupils.

The Alps are in a foreign land. Our pupils may never be able to go to them, and the mountains can never be brought to the pupils. In such a case the pupils can never know the Alps. We may teach a height that is equal to their height, a direction and extent equal to their direction and extent ; but these qualities will be combined into an imaginary mountain that has nothing in nature corresponding to it. This is the character of all that knowledge of things which we have not had brought into the presence of our senses.

In such cases we may be said to know *of* things, but we cannot be said to know the things themselves.

We know of things when we learn by illustrations.

It may be well to know of things, which in themselves we can never know ; but we must remember that we cannot even know *of* things, unless objects having the qualities we study are presented to us. Language in this case, also, cannot be the first occasion of knowledge ; illustrations may be the occasions of a knowledge of qualities and relations ; they cannot be the occasions of a knowledge of the things themselves.

If we confine our pupils to text-books during the time of early school life, we shall shut them away from a contact with objects of thought. They will, under such teaching, acquire a habit of dealing with words only ; of *things* they will know little and care little.

They will not know the intellectual joy that springs up in the mind of one that perceives, through his own senses, the effects about him, and by the activity of his own powers is able to find the cause of the effects.

The use of books to the exclusion of things stupefies the mind, and leads the pupil to pass through the world and never see it.

One trained by text-books may become a fluent speaker, but he will be likely to become a superficial thinker. His words cannot mean much to himself, whatever signification they may have to others. Students that are shut up to text-books, seldom have any enthusiasm in study. They pass through the schools as a formal thing, then go out into life, and begin by the study of things themselves, to learn how to prepare for the duties of life.

How little those of us who were brought up on text-books do know ! To test our knowledge, ask us to describe a leaf of one of

the most familiar of our trees, or the difference between a berry and a fruit; ask us to show the difference between a plant and an animal; what is meant by the *word* tree or book, or knowledge or belief, or opinion, or education, or right, or law.

Ask us for the difference between elementary knowledge and scientific knowledge; or the difference between a text-book and any other book. Ask us to explain a method of thinking by an illustration of the method. Watch us to see if we do not enter sometimes without hesitation upon the discussion of questions concerning which we evidently know little, and we shall be found rich enough in words and poor enough in ideas.

This need not be so. Let us no longer, in our study and in our teaching, violate a law of the human mind by using signs before the thing signified is known. Let us not permit our pupils to use names before we have led them to be conscious of ideas. Let us teach by that method which will permit the pupil to invent his own thoughts. Let us remember that the mind is trained to self-government only by its own activity; that words are powerful things when they represent ideas, but nothing, disconnected from them.

If the teacher understands the laws of the human mind, he will teach so that his pupils will have knowledge and culture.

It is grand work for a teacher to provide himself with the right means of teaching, and then to stand up before his class, and lead their minds to work out for themselves their own knowledge, and in such a way that strength as well as knowledge will be the result.

He will know that as the mind becomes conscious of its first ideas of objects by a study of them, so it is possible to express these ideas to another mind in words, only as both have already known the same objects, and as both are able to use, in the same sense, the words employed to express this common knowledge. Hamilton says, that words, as languages are constituted, are nothing more than hints, to put us to the study of things; that it is the office of language not so much to pour knowledge from one mind into another as to bring two minds into the same train of thinking, and to confine them to the same track.

The present use of text-books in this country, and the whole system of lecturing in the schools, as furnishing original sources

of knowledge, are fallacies that have already wrought mischief enough.

The reform we need is, that which will be brought into existence by leading the pupils of the schools back of signs or words to things signified for their knowledge, and by such a leading as will permit the student to find knowledge for himself.

We must make all possible haste to change the results of a school life, from the acquisition of a small number of expressions of disconnected facts, to the acquisition of a method of study that will send the pupil from the school into the world prepared to acquire knowledge and to use it.

There is not a good teacher in the country whose best teaching is not given without the text-book.

When we have a method of teaching in our schools that will occasion such elementary knowledge as will render scientific knowledge possible; when our teachers teach, and our pupils learn, in accordance with the philosophy of things, and of the human mind; then the efficiency of our schools will be increased a hundred fold; or, rather, a higher efficiency will begin to exist. That time is coming, for teachers are now everywhere studying their work; and as they study carefully, they find a higher end to attain than can be attained by committing to memory descriptions of the ideas other minds have invented. They find that there is a mode of teaching which will lead the mind of the pupil to unfold itself; which will train the mind to know things and to investigate all its subjects of thought in accordance with a method that will prepare the mind for the life it is to live.

"TEACH BUT ONE THING AT A TIME."

No maxim is oftener repeated than the aphorism above. What does it mean?

Teaching consists in presenting to the mind objects and subjects of thought as the occasions for its activity. By exercise the mind comes to act with facility, and to have an inclination to act in certain ways; habits are thus formed, and character results in

accordance with the kind of activity. This is what teaching is, its method, and its end.

Now, all right activity is in accordance with certain fixed laws of association, by which thoughts of one thing excite thoughts of some other thing. The name of a thing naturally excites thoughts of the thing itself; so the thought of the thing naturally excites the thought of the name. The date of an event naturally excites thoughts of the event; and the thoughts of the event naturally excite thoughts of the place, and of the participators in the event. The thought of an effect naturally excites thoughts of the cause. It is thus that the knowledge of a cause and the knowledge of its effect can be taught at once, and in less time than either can be taught separately.

The imagination depends for its materials and for its activity upon the sense of sight. We must, then, teach the pupil to see, if we would cultivate his imagination; the one thing must be done for the sake of, and at the same time with, the other. The emotions are cultivated by sounds, hence the emotional nature may be trained by singing and speaking; but the ear, and the voice with its many organs, are at once in exercise with the simplest vocalization.

What, then, can be the meaning of this aphorism? It can mean no more than that subjects of study shall have a distinct presentation. Thus, what belongs to grammar shall be kept wholly distinct from orthoëpy and orthography, from logic and rhetoric; also, that a logical order shall be observed in the teaching of topics, and that they shall not be presented in such rapid succession as to be huddled one upon another in the mind.

A misapprehension of this aphorism is seen in the attempt to teach words without ideas, expressions without thoughts, and generally to divorce signs and the things signified. Hundreds of illustrations crowd upon the mind from the arbitrary teaching of the alphabet of our own, and the unmeaning forms of a foreign, language, living or dead, to the senseless forms of the logical syllogism. A result of this misapprehension is, that the time of the child is frittered away in committing to memory disassociated facts, and forms of expression which have no basis in facts, which is not simply a useless appropriation of time, but a wicked abuse of a sacred trust. Another result is that where fine

grading is an absurdity, as in the majority of district schools, a single individual often constitutes a class, and is conducted on the class plan.

Now, since things are necessarily associated in the mind, the teacher needs to know the laws of association, and, knowing them, he should avail himself of his knowledge to teach together, and by natural methods, things which have a natural dependence; and since time is a most important factor in the education of a child, he should tax his ingenuity in devising means for teaching as many things as possible at the same time, always having regard, of course, to the logical order of presentation above referred to.

Thus, in teaching the young child to read, while the principal aim should be to secure the expression of the thoughts and feelings of the author, the method should be such that the elementary sounds and the letters of the language, and, with these, the elements of orthoëpy and orthography, should be acquired incidentally; the method should also secure to the pupils a plan for elementary composition, whilst the matter should embrace the elements of botany, mineralogy, zoölogy, and much elementary knowledge of many things, as of colors, geometric forms, etc.; and, in aid of all these exercises, the child should be forming his handwriting.

In teaching arithmetic, the distinction between mental and written arithmetic should vanish; what is ordinarily pursued orally, should often be expressed in written characters, and much of written arithmetic should be expressed orally. Under the general term of combining numbers, the young pupil would learn at once to add, subtract, multiply, and divide simple numbers; this he would do in less time, in fact, than he now learns one of these operations separately.

With geography, too, should be taught drawing, or rather geography should be taught with drawing: the details should be made to hold their natural relations; latitude and longitude should be taught with the outlines of the continents, — the water-courses with the mountains, the commercial towns with the configuration of the coast, the navigation of rivers, and the railroad routes. History should be taught with geography, peoples and their occupations with climate, soil, and productions.

This method is not wholly inapplicable to the higher grade of work ; for botany and geology have mutual dependences ; psychology and logic restate and enforce some of the principles of rhetoric ; however definite the outlines of the sciences, all are interdependent. But to no one is the true import of the above aphorism more important than to the teacher of the district or ungraded school.

G. A. W.

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*CLASSIFICATION AND COURSE OF STUDY FOR
UNGRADED SCHOOLS.*

AN ungraded school is not necessarily one in which the pupils have not been classified according to their mental strength for study, and according to their knowledge, but one in which several grades are found together in one school-room, under the control of one teacher.

A school must be classified, however mixed it may be. Suppose the proper classification to be made in the mixed school, each grade should have the same course of study it would have if it were taught by itself in a separate school.

The classification and course of study in an ungraded school should be the same for each division of that school as they would be if that division were by itself under its own teacher.

The teacher of the ungraded school should aim to accomplish what the teacher of the graded school accomplishes, in so far as he has the time and the power.

We may then classify the pupils in an ungraded school, and make out courses of study for the classes as though each grade were to be taught by itself in a separate school.

The classification of our so-called ungraded schools may be into primary, intermediate, and grammar divisions.

All young pupils whose powers of observation only are especially active, and who are learning their first elementary knowledge, should be collected into the *primary* division. The powers of observation are those powers by whose activity the mind is furnished with sensations and perceptions. The course of study, then, for the primary school should furnish correct occasions for

the activity of these powers, and, therefore, should consist of the following topics : Reading, which implies a consciousness of the ideas and thoughts expressed by the words and construction of words, constituting the reading lesson ; Alphabet and Spelling, that the pupils may make words for themselves ; Elementary Composition, that ideas and thoughts which have been invented and combined may be expressed with propriety and facility ; Number, that quantity may be studied and expressed ; Linear Drawing, that the young pupils may be trained to see things as they are, and be furnished with additional means of describing what they see ; Singing, for vocal culture and for the training of the emotional nature ; and Gymnastics, for the health and grace of the body.

Lessons given upon the topics I have enumerated may all, with one exception, be called lessons in language ; for learning language implies learning that which is named and described by language, as well as learning the description itself. From these lessons in language there will arise the first series of lessons on objects to be taught in the primary school ; and from the lessons themselves, the teacher may learn what objects and what qualities of objects he is to teach, and the order of teaching them.

Whatever is named and described in the language lessons, is to be taught objectively, before names and descriptions are taught.

This objective teaching, arising from the primary course of study, is a part of the course itself, and has its immediate end in this course.

But in addition to all this, the primary teacher must look forward into the intermediate school, to know what preparation his primary pupil will need, that he may enter upon an intermediate course of study.

In the intermediate school, the pupil will be required to distinguish objects from one another by means of their qualities. This analysis of objects of study for their distinguishing qualities will prepare the student for future scientific study. Before one can know the qualities of objects, he must know the qualities themselves. The qualities must be taught objectively in the primary school.

A systematic course of objective lessons on the qualities of matter will constitute the second series in the primary school. The qualities to be taught and the order of teaching, are color, form, size, weight, place, and at last, the secondary qualities, as hardness, brittleness, etc.

After the primary course of study has been thoroughly applied, the young student can enter the intermediate school, prepared by the discipline of his powers of observation, and by his elementary knowledge, to take an advanced step in reading, spelling, elementary composition, and number, and in all other exercises commenced in the primary school. Facts that are to furnish the occasions for a knowledge of history and geography, may also be taught. The great work of the intermediate schools is to lay a foundation for the sciences. The powers of mind to be especially cultivated, are the powers by which we have sensations and perceptions, or the presentative powers, called also powers of observation ; also the representative powers, memory and imagination. The occasions for calling all these powers into activity are reading, spelling, elementary composition, writing, number, facts of history, elements of geography, special lessons in language, singing for the emotional nature exercises for the health of the body. These topics should be taught orally and objectively. The teacher of the intermediate school should teach the topics that are peculiar to his own school, and, besides these, he must begin to prepare his pupil for scientific study. Science is a knowledge of plans of structure, or a knowledge of a plan in accordance with which facts exist. A knowledge of plans of structure, or scientific knowledge, is occasioned only by a knowledge of structures themselves. The pupils in the intermediate school, in addition to the study of the topics that have more immediate reference to this school, should be put to a systematic study of objects for facts concerning the structure of these objects.

This will give rise to a third series of object lessons, that have for their purpose a knowledge of those facts concerning the structure of objects, by means of which the objects are distinguished from one another, and by which, in the future, they will be classified.

In this series of object lessons the student will apply the

knowledge he has gained in the primary school, in his study of qualities, to the study of objects for their qualities.

The teacher is guided in this intermediate object teaching by a knowledge of the sciences, and by his knowledge of the true occasions of scientific truth.

The order of classification in the sciences that pertain to natural objects is, into branches, classes, orders, families, genera, and species. These divisions are made on account of the similarities and differences in the qualities of objects.

Object lessons, preparatory to the study of the natural sciences, should be given in such a manner that the pupil will learn the marks by which classifications are to be made and in the order in which these marks will be employed in the sciences themselves.

In the intermediate schools the foundation for scientific study is to be made.

When the pupil has passed well over his preparatory study for elementary knowledge, and his mind is trained to study, and is well stored with a knowledge of facts; when he begins to inquire for the causes of things, and can understand the answers given to his inquiries, then he may enter upon his scientific study, in what should be called the grammar school.

In addition to the presentative and representative powers, the reflective powers are now to be especially trained.

These powers are generalization and reasoning.

In the course of studies to be used as occasions for the activity of the reflective powers, number leads to arithmetic, arithmetic to algebra, form to geometry, the study of animals, plants, and minerals to zoölogy, botany, and mineralogy.

From the study of those changes that may be observed in bodies and among them, the mind may be led to the study of chemistry, natural philosophy, and astronomy. The pupil may now be introduced to geology and geography.

The study of physiology is implied in the study of plants and animals. From the study of objects, and from the use of language, the mind will be led back of these things, to the study of the structure of language, by which thoughts of objects are expressed, and the study of grammar may be introduced. From the study of the structure of language the mind is led to the

study of its use, and rhetoric, English literature, and advanced composition writing are taken up.

From the study of language, that expresses thought, the mind is naturally led to the study of the laws of thought itself, under the topic logic. From the thoughts the mind has, it is led to the study of itself, and it gains a knowledge of psychology. Now the higher mathematics may be introduced, and also the philosophy of history.

The mind will now naturally turn its attention to the relations man holds to man in society, and to the relations men hold to God, — so that civil polity and moral philosophy should be taught. Thus by regular steps the mind of the pupil is led from the study of things, to the study of God who made all things.

The wants of the developing mind should be the object the teacher must study to supply, as he makes out his plan of studies and determines his modes of teaching.

Elementary knowledge should always be made the occasion of scientific knowledge; and the different topics in the course of study should follow one another in that order which will enable the pupil to think so that his thoughts may be related to one another by the law of dependence.

It should be the aim of the teacher to teach his pupil a *plan* of study, rather than to teach him many facts or much science; to train his mind to think and to behave properly, rather than to attempt to lead it to acquire much knowledge, or to permit it to work without method.

The schools should have a thorough grading, and definite courses of study, — courses made out in accordance with some principle, and then the courses should be applied in a right manner.

A wise authority over the schools will first turn its attention to courses of study; secondly, to classification of the students to be taught; and thirdly to the qualifications of the teachers who are to apply these courses. Or, rather, the authority will turn its attention to all these things at once; for the existence of any one of these conditions is of not much account without the other two.

Our schools now need thorough organization, such as can be established by men of thorough culture, who, enlarged by their culture, can rise above all prejudice and the effects of mere habit,

and can follow the guide found in the results of their own thinking. The schools must be supplied with the means of teaching. Apparatus, objects of study, and all the means of elementary study must be supplied in abundance; and then the teachers of the different grades of the lower schools must be permitted to teach with more reference to the wants of their pupils, and with less to the questions that will be put to them on their examination for a higher grade of study.

Our teaching, it seems to me, ought to mean more. It ought to have a more definite end to secure. In this country our schools are not equal to those of other countries, in organization and in means for work.

Our teaching is more mechanical, and we pay more attention to the forms than to the philosophy of teaching. Some are even opposed to method in our work. But these things are passing away, and both teachers and the great public are changing their minds in regard to what good teaching is.

A child in our lower schools ought to prepare himself for the scientific study pursued in the upper schools. This preparation consists in cultivating his powers of observation, and in acquiring a knowledge of facts. The facts can never be learned except right occasions are presented to his mind.

Right occasions are not words in the school-books, but the things themselves that constitute the facts. Whatever we desire our pupils to be or to do, they must be trained to be and to do by being and doing.

If the pupil in the lower schools has a right training, he will have the means for scientific study, and a method of study in accordance with which the means should be used; and he will have mental discipline that will enable him to make a full application of his method.



HOW TO GIVE ELEMENTARY LESSONS IN ZOÖLOGY.

I WILL suppose that the primary pupil has been led to observe,
1st. The marks, that in the future he will use in classifying natural and artificial things.

2d. The marks in natural objects by which they may be divided into organized and unorganized things.

3d. The marks by which organized things may be divided, in the future, into plants and animals.

In the supposed third step taken, the pupil has been taught the marks by which he may be able to distinguish between organized bodies that are plants, and organized bodies that are animals. A knowledge of these distinctive animal and plant marks will enable the pupil to make an elementary classification of organized objects. Permit him, therefore, to separate the animals from a promiscuous assortment of organized things which are in his presence. Set aside the plants and place before him a bird, a lobster, a starfish, and a clam,—representatives of the four types of animal life. Teach the pupil the marks by which the four branches of animals may be known from one another. Better not give the names,—vertebrate, articulate, mollusk, and radiate to the animals. Class names are names of abstract qualities found common to a few individuals and extended to all of the same kind. If the pupil uses these class names in his elementary work they may have no definite meaning to him when he comes to use them in his scientific work. A *vertebrate animal* is an animal having either a bony or cartilaginous axis, above the main part of which there is a cavity containing the nervous system, and below the main part a cavity containing the organs of circulation, respiration, digestion; and reproduction; but the word *vertebrate* names a plan of structure which exists only in the mind. An indiscriminate use of class names, then, would prove fatal to the pupil in his future study. In elementary teaching it is not necessary to give names to the branches of animals at all; but if for convenience you prefer to speak of them by name, you may call them respectively backboneed, ringed, wheeled, and soft-bodied animals. Have the pupil make an elementary classification of the four kinds of animals representing four plans of structure, the marks of which you have taught. All animals having a backbone, let the pupil place by themselves; those made up of joints, segments, or ring-shaped portions which are movable upon each other, by themselves. And so the wheeled and soft-bodied animals respectively by themselves. Have the pupils name the different animals that they have seen, and tell to which division each one

belongs, by having previously stated that the animal has a backbone, is composed of a succession of ring-shaped parts having a hinge motion ; has its parts arranged around a vertical axis ; has a soft body, as the case may be. The more permanent marks of an articulate animal are the peculiar positions of the circulatory and nervous systems in reference to the position of the digestive system. An articulate animal is more surely distinguished by having its circulatory system immediately beneath the upper surface, the digestive system below the circulatory, and the nervous beneath the digestive and lying close to the under surface. The position of the nervous and circulatory systems of articulate animals, is just the reverse of the position these systems occupy in the vertebrate animals. In teaching the marks of an articulate animal, it would be better to lead the pupil to see the position of the heart, the stomach, and the nerve centres, — the permanent and distinguishing marks of the animal.

Following the method already suggested to you, place on one side all the animals excepting those which represent the vertebrate plan of structure ; and put before the pupil a cat, a bird, a fish, and a turtle, — representatives of the four classes of backboned animals. Lead the pupil to see that these animals are all backboned animals. Show to him the backbone of a turtle. Teach him the marks by which these animals are distinguishable from one another. In teaching that the bird and cat are warm-blooded animals, and the fish and turtle are cold-blooded, have the pupil, for himself, feel of the live animals. It may be questioned whether this teaching is sufficient, as it is not safe to infer that an animal feeling warm or cold to the touch is, therefore, a warm or cold blooded animal. The fish may have been immersed in warm water, and the temperature of the pupil's blood may be unusually low. The animal then to the pupil's touch would feel warm ; but these conditions, in both the fish and the pupil, are abnormal. I do not think it in place at this period to have the pupil define warm-blooded and cold-blooded animals. He is acquiring a knowledge of facts ; and facts only should be taught. In teaching that a turtle breathes through lungs, show and inflate the lungs of a dissected turtle.

While the distinguishing marks of these animals are being taught, several pupils may be at the blackboard making a record

of what is taught. Have them write the words, *Marks of a bird*, and, either under it or against it, — Warm blooded, breathes through lungs, lays eggs. In like manner, have them record the marks of a cat, a fish, and a turtle, as the work progresses.

Dwell at length upon the application of everything taught. Let the lessons given be short ones. Have the pupils, at the close of each lesson, make an elementary classification of the objects, the marks of which you have just taught. Do not introduce into your teaching anything that does not hold an intimate relation to the qualities or marks of the things you are teaching. Teach the distinguishing marks and nothing more.

In the same way and in the right order, you should teach the primary and intermediate pupil all the facts that are necessary for a scientific student to use in classifying his objects of study from their classes, orders, etc., down to the most particular classification, or into their species.

Let us examine the elementary work in zoölogy that we advocate.

We began with the most general things; and in teaching these, we obeyed the law of the mind in acquiring more general knowledge first. We taught the marks and the elementary classification of

1st. <i>Body.</i>	{ Natural.
	{ Artificial.
2d. <i>Natural Body.</i>	{ Organized.
	{ Unorganized.
3d. <i>Organized Body.</i>	{ Animal.
	{ Plant.
4th. <i>Animal Body.</i>	{ Vertebrate.
	{ Articulate.
	{ Mollusk.
	{ Radiate.
5th. <i>Vertebrate Animal.</i>	{ Mammal.
	{ Bird.
	{ Reptile.
	{ Fish.

We taught facts only; and a knowledge of facts is elementary knowledge. Our teaching, then, is purely elementary. And as such we claim that it will lead the pupil to a preparation for sci-

entific study. Observe that our method of teaching the qualities of objects is not a miscellaneous way, which method, though in itself is good, so far as it awakens interest in observing, and furnishes a significant language, yet it fails to teach a *method of observing*; and is not a preparatory step to the sciences. The method we employ is not aimless; it awakens an interest in observing, it furnishes a significant language; and it does more,—it leads the pupil to see, by observing objects of the same kind, that some objects have qualities in common. This knowledge will, in the future, occasion a knowledge of a plan in accordance with which facts exist. A knowledge of plans of structure is scientific knowledge. The elementary lessons we give in zoölogy, in accordance with our method, will be the occasion of a knowledge of the science of zoölogy.

Therefore our method of teaching elementary zoölogy possesses two features which we commend for your consideration:—

First, it furnishes for the pupil general knowledge first. This way of acquiring knowledge is in obedience to a law of the mind.

Second, in addition to doing all for the pupil that miscellaneous object teaching does, it gives him that knowledge which is elementary to, and the occasion of, a knowledge of scientific zoölogy.

MIDDLETON SMITH.

VERMONT DEPARTMENT.

H. T. FULLER, EDITOR.

THE endeavor to overturn the system of educational supervision in Vermont has proved successful. The Legislature in session at Montpelier voted, November 18, to abolish the Board of Education, and substitute in its stead a State Superintendent of Instruction, whose duties are essentially those of both the outgoing board and its secretary. Several causes have conspired to produce this result: *First*, a grudge of four years' standing against the board because it elected as secretary, in place of Mr. Adams, a non-resident of the State; *Secondly*, a desire to reduce the expense of general supervision; *Thirdly*, the wide-spread dissatisfaction with the action of the board concerning the recent change of text-books; and, *Fourthly*, the unpopularity of the reforms initiated or suggested by the board and its secretary, touching especially the introduction of the *town* system instead of the *district* system of schools, and of a method of supervision by counties, instead of by towns as at present existing. Other minor influences have concurred. The reform suggestions contained in the last report of the board and its secretary, the request of the latter for a clerk, and the fact that Dr. French had given considerable time to labor in another State, no doubt broke the camel's back. Yet the chief lever operated with, has been the change in text-books and the expense it entailed. The agents of one or two publishing firms whose books were thrown out, have for two years been ceaseless and untiring in their exertions against the board, and unrelenting in their hostility to its executive officer, whose good fortune (or misfortune) it was to have been the author of the arithmetics recommended for use in the State during the five years beginning November, 1873.

Our own experience and observation of differing systems of educational supervision in several States east and west incline us very strongly to prefer a system that eliminates such supervision from the arena of popular politics. is more progressive: it is productive of more permanent results. Under such a system, Horace Mann accomplished so much for popular education; and in the same way, Massachusetts not only maintains her leading educational position, but

makes experiments and tests methods of which, when success follows, other States reap large benefits.

It is eminently to be regretted that the people of Vermont evince so little disposition to encourage either the adoption of the wise and thoroughly tested reforms of other States, or the additional expenditure of money needed to make any educational force or system most efficient. We had hoped to record larger appropriations for the support of at least one of our normal schools, but in this we are disappointed.

It is, however, a matter of congratulation that the Legislature has acted so wisely in the selection of a Superintendent of Instruction under the new law.

The incumbent, Principal Edward Conant, of the Randolph Normal School, brings to the performance of his new duties, large and successful experience as a teacher; extensive acquaintance with the educational interests of the State, unflagging energy, and an honest purpose. We shall be much mistaken if there is no advance under his leadership.

THE MARKING SYSTEM.

THIS world is a hard place for shirks. Those deluded people who are spending ingenuity and energy in organizing their burdens on other people's shoulders, will not believe such an aphorism any more than they will believe that the shirks are the ones who make the world hard for others.

It behooves the teacher to do what he can to diminish this race of cumberers upon the face of the earth by all lawful means. The question is, "What that is lawful is at the same time most effectual." In few minds is there more than a half assent to the voice, strong in its very feebleness, which has said, —

"Get work! get work!

Be sure 't is better than what you work to get."

Good human nature, and above all child nature, needs something more as an inducement to exertion than the assurance that idleness is a synonym of discontent, or that God's curse of labor has become our greatest blessing.

A real, near, tangible return for energy exerted, is what impels every average man and woman, boy and girl, to continuous effort. A walk taken on the abstract principle that exercise is good, is half a failure;

a walk taken for some trivial errand insensibly accomplishes the higher object of healthful exercise ; study for the one grand, culminating purpose that they may become learned, is too high, — children cannot attain unto it ; study that they may have a clear understanding of the topic to be met under discussion in the class-room brings sure and satisfactory results. And the knowledge that a record is kept of such results, that failure not only has a distant and doubtful effect in modifying their characters, but also is surely in the balance already against them, magnifies to due proportions the work nearest at hand. There is a realism about the little black figures on the white ground, and a permanence in them. By their fixed, obstinate adherence to facts, they help to banish the delusion that the stolen sweets of idleness can be paid for by spasms of excessive work. They are the fair, smooth stones that mark the way, or the stained and broken ones. Each stands for itself, and no after brilliant stroke can polish it.

So great is the love for the *dolce far niente* that it takes more than words to counteract it, — arguments that convince without converting.

Ambition and fear are the two forces oftenest used, and with best effect. It is when applied so as to intensify the love of study, and study from a keen desire to peer into the mysteries, that they are most satisfactory. Fear, as a motive, has for the most part been banished from the school-room since a better civilization has grown up among us. The inventive minds that were formerly exercised in adding to the petty scheme of torture that was once in vogue, may now devise new and interesting methods to vary the daily drudgery. And in choosing the site of a school-house in these days, no one gravely considers whether a branch with stout and flexible twigs grows conveniently near. But ambition holds its place as one of the ruling powers. As a force, it has all the while been present. The marking system but regulates it, — directs it so that it shall bear towards intellectual development. Before, it may have led the same amount of vital energy to be spent in those trials of skill and strength in which the hand and not the brain has a goodly share of training. Laudable practices, but if allowed to supersede mental gymnastics, we find that they make the representative Jack of our early classics a dull boy. Or the ambition inherent in every mind may be bent towards disciplining the teacher by trying his patience. Precedence in mischief sometimes gives distinction in schools, and in larger communities. This same half-wasted ambition may be made to promote industry, keenness of insight, mental and moral strength. Colleges and universities have found it expedient to use competition to promote these ends, and it is becoming

more and more prevalent in lower grades of schools. But some who use it do so under protest while waiting for the better time, the purest intellectual light. They assume that it is not the highest motive to study for marks. I grant it. It is nobler to study from love of wisdom and a burning desire to prove all things ; but if that love and that desire were all that moved the average student, it would bring tears to the eyes of the laughing Philosopher himself, to see how often he yielded to the little negligence that spoils, and how seldom used the great industry that saves. Other springs of action have been given him, — call them selfish if you will, — an honest pride in making the most of his one poor little talent, rather than leave it to rust in a napkin ; a gladness in the approval of friends, of teachers, of fellow-students and, if marks record his right to a measure of satisfaction with the labors of the day, a gladness in them.

It has been objected that they narrow the mind by giving satisfaction if only the questions that come up in class are answered. But the concentration gained by this narrowing process is the very object of school discipline. When the flitting, fluttering Will o' the Wisp thoughts have been fairly caught and are firmly held to one subject, the work is done. The exact knowledge gained by learning a few questions well, is of incalculably more value than an indefinite, comprehensive view and certainty in regard to nothing. Marks inculcate the necessity of expressing well what has been studied. One who can tell what he knows of a subject has a double knowledge, — a knowledge for himself and for others. He is more accurate and self-possessed than he would have been, had he studied merely that he might understand, and not that he might also explain. A class-room readiness is not a sign of superficial, but rather of well-digested information. Even general knowledge can be gained more readily by one who has learned to listen and assimilate, and all of whose faculties have been trained to be on the alert.

But if, by methods requiring exactness, by the spur of records and reports, the intellect is thus developed, is the moral nature dwarfed ? Selfishness and deception are supposed to run rampant, but a well-regulated system is cause of this, as Tenterden Steeple was cause of Goodwin Sands. Nowhere is deception a more sorry ally. Straight-forward conduct merely as policy is at a premium. So if principle depend upon a habit of uprightness, it is in favor of emulation that the scales should tip. If the scholars were, as a rule, allowed to report for themselves, if the papers of written recitations were not examined, and affairs were conducted in a slipshod way generally, the result would be painfully demoralizing ; but we are speaking of a carefully

conducted system, where the slightest approach to dishonesty defeats the very ends it sought to gain.

The man out in the great school of the world, who, by patient persistence wins there the highest places, is he supposed to be cultivating selfishness? He fairly does his best; but the course lies open to every neighbor, and the race can stimulate him without casting the shadow of a wish that another shall be caught tripping. He may honestly rejoice in the success of one who is more highly gifted or has used more assiduous application than himself. It is in the very nature of things, in the constitution of society, that there must be competition, that each one may find the place he is best gifted for, in order that no round pegs roll loosely about in square holes.

Great government reforms are based upon this principle. Our religion, speaking in the practical words of Paul, recognizes it.

In classes where no leaders are allowed there is no occasion for the reproach of selfishness, since one does not gain by another's loss; but a word may be said in favor of perpetuating those time-honored institutions, class-leaders, even in some separate studies of our schools. For often it is not the urging of the teachers but the zeal of the leaders that makes the class advance, not a pushing but a drawing force that moves the wheels. The positions taken by the scholars are but relative, and the desire of each one to lessen the distance between himself and the one next above him is a constant factor. One single, thorough, determined worker in a class is a continual reminder and impetus, proving possibilities to the discouraged, and standing as a mute reproach to the indolent.

Here a danger creeps in. It is, that some ambitious and over-zealous pupils who need to put on the brakes rather than to use more steam, should suffer from the high pressure system. But the same argument might be used against employing energetic, live, inspiring teachers, lest they should overwork some under their influence. All the way up to manhood and womanhood, and most of all after the real business of life has commenced, nervous, excitable people are liable to overtax themselves, and the younger they learn to exercise common-sense the better it will be for them.

The method to be employed in marking must vary in different grades and in different classes. The decimal scale is usually adopted to ensure dispatch, and any plan which does away with complicated marks, which simplifies it, is an improvement. To apply a fair test briefly to each scholar, and then to note how far he has fallen short of correctness, is convenient, and, most important of all, satisfies from its strict justice. It does away with much of the interminable adding and aver-

aging that make life a burden about the time for reports. And anything that diminishes the mechanical work while it does not interfere with it, leaves the teacher more at liberty to refresh himself by study, for marking merely is never going to prove the philosopher's stone to leaden ignorance.

The life-story of a weak, miserly weaver of Raveloe, has been told with a simple directness that is full of pathos; the power of circumstances is strongly portrayed, narrowing his sympathies and hopes till he seems scarcely less a machine than the shuttle he throws. His guineas rising in the iron pot satisfy him without suggesting a thought of the comforts they might represent. In the sign he has forgotten the thing signified. Wiser men than Silas Warner have done the same, only instead of a loom and guineas they have had some ingenious project or well-knit theory. It has become to them the one important thing, and the marking system is liable to this abuse of pre-eminence. Just as soon as all a teacher's efforts in the class are directed to finding out what the scholar knows from the text-book, and no verbal instruction is given, he has done an injustice to himself and his class, and has begun the cramping process. While we are complacently congratulating ourselves on our modern improvements, let us see to it that with our object-teaching and diagrams, and marking, to simplify and stimulate, we do not forget the good old-fashioned teaching that furnished healthy brain-work for pedagogue and pupil.

X.

A FEW HINTS ON THE STUDY OF HISTORY.

THE study of history may be made one of the most dry and barren, or one of the most interesting and fruitful, of all the studies pursued in school. With young children the appetite for stories is very strong. They delight in word-pictures; and for them the scenes from real life should be vividly portrayed. At first, little attention should be paid to the relation of time or of cause and effect. The characters should be drawn in strong colors, and the whole scene brought powerfully before the mind. After such preliminary reading the pupil may begin the formal study of history in school.

Now the preceding desultory style of reading is to be changed. Events are to be studied in an orderly manner, with proper chronological arrangement and philosophical development.

The more important events are to be clearly distinguished. And just at this point there is room for great improvement in some of our

school histories. They narrate too much on a level, the minor parts appearing on the printed page just as prominent as the more important. The outline sketch should be given in larger type, and the substance of it should be thoroughly laid up in memory. This would keep all well connected and orderly. Then this sketch should be filled out with the strong, vivid pictures that would make past times and distant places seem present and real,—such pictures as in childhood riveted the attention and charmed the mind. An author of a History designed for schools should be master of two different styles of writing,—one compact and in form, adapted to mere statement, the other more free and full, and in form of animated description.

So far as the outline study is concerned, important aid may be derived from representations addressed to the eye. A good method, and one much employed, is to draw century-lines, marking off the page into spaces corresponding to centuries, and then to mark in proper places the principal names and events. This will help to impress upon the mind the approximate date. In studying the history of monarchies, it is very useful to run a genealogical table through such chronological lines. Where so much depends upon the genealogy, it should be made, in its main features, thoroughly familiar.

In former days, the student of history spent much time and pains in committing dates. Subsequently a reaction took place; and now many persons scout the idea of committing dates at all. But this is an extreme, and a very unwise one. The most important dates (and those only) should be thoroughly fixed in mind. So, too, in the old days, it was the fashion to commit much to memory. Now, many persons oppose the idea of committing to memory at all. Both extremes are to be avoided. Some few things are so very important that the statement of them should be made with the utmost care and exactly memorized. Knowledge in this definite form is retained longer than ideas loosely conceived or expressed. It is well that the student should recite history in various ways. Let him state the few great events exactly in a given form of words; state others entirely in his own language, by topics or in answer to questions; write others in brief tabular form; write sometimes a full account or description; or practise any other method of expression that experience may show to be useful. Let him avail himself of every collateral aid, such as progressive maps, which every school history should furnish.

Let him especially bear in mind that the right study of history is not confined to isolated facts and dates, or the record of great wars and the biography of kings. It deals with the daily lives of the people, their condition and progress in freedom, education, religion, laws,

customs, and civilization. It teaches us by what course the institutions that we now enjoy have been developed in successive generations, and thus fits us for the duties of good citizenship in the present time. Thus pursued, the study of history becomes noble and elevating, giving us a wide knowledge of the experience of others in the past, and enabling us to make this good and orderly knowledge available for our own guidance in the future.

C. S. H.

*ABRIDGMENT OF ELEMENTARY WORK IN LATIN
AND GREEK.*

[Concluded.]

A SECOND method by which more time is gained for the study of natural science in the schools preparatory to college is, by beginning Latin and Greek earlier in the general course of study, or what is equivalent, extending the time of the preparatory course. Several of the best academies in New England have recently added a year to their courses of study for this purpose. Philips Exeter Academy accordingly gives five years of Latin study and three of Greek, where it used to prescribe four and two years for each respectively; Philips Andover Academy lengthens from three, and three and one half years, to four years, and many schools, both private and public, require the thorough completion of a course of study, which a few brilliant students complete in three years, but for which the majority require one or two years additional.

The tendency of the times is not to an abridgment of Latin and Greek work when it is pursued at all thoroughly, but to such a distribution of it as shall allow more time for scientific studies. Even in Vermont, school committees are seriously considering the expediency of beginning classical studies in the grammar schools, that the high school may have more time for English work. A further reason for this appears in the necessity of a knowledge of the classics in order to the most successful prosecution of scientific studies. Something may be done with the elements of botany and physics without the preliminary Latin or Greek; but systematic botany is not thoroughly mastered and applied by those unacquainted with the nomenclature and classification accepted by scientists. Indeed, this nomenclature has a meaning and force to a classical student which another has neither power nor imagination to comprehend.

We do not intend to be understood as affirming that no abridgment

of work in Latin and Greek is possible. We believe that many teachers accomplish less than two thirds what they might, in the first year's tuition of classes in these ancient tongues. But time is not gained by rushing over the grammar faster than the forms can be permanently fixed in the memory. Hence our own practice is to give brief lessons in Latin and Greek Grammar, and with each such lesson provide for oral and written translation into English, and then from English into the ancient tongue ; and if both Greek and Latin are pursued at the same time, to translate from each of these languages into the other. Thus the vocabulary is rapidly acquired, and the student is certain of the forms as far as he goes. Unite with such a course the careful tracing of English derivations from classic stems, proper discrimination as to shades of meaning of words, the study of mythology, geography, history, and antiquities, and in six months, if only the etymology and first principles of syntax are completed, the benefits of linguistic study will be clearly apprehended by the student ; and if there exists any capacity for it, a genuine love for such study will result and become the spur to future excellence.

F.

RESIDENT EDITOR'S DEPARTMENT.

WE are happy to announce to our readers that an arrangement has been made with a responsible party, by which, instead of four ill-supported State journals of education, we are to have one New England Journal, with the good-will of the American Institute of Instruction, and all the several State associations. With such a subscription list as this must give, and the greatly increased advantages to advertisers, it will enable the publisher to give that personal attention to it which has been impossible under the former arrangements.

In congratulating ourselves, however, upon this consolidation of our journals, we are not willing to abate one iota from our estimate of the value of the work done by the journals which are now to be merged into one.

They have done a work which could not have been done so well, we believe, by any other agency. Thirty years ago nearly all our educational meetings were conducted chiefly by clergymen; and very few of our teachers, especially public school teachers, ever wrote an article for publication.

When the "Massachusetts Teacher" was established, and we presume it was so with those of the other States, the twelve editors responsible for the several numbers not only furnished articles themselves, but obtained assistance probably from five times their number of the teachers of the State. Now when we take into account the reading necessary in the preparation of those articles, and the facility which many acquired in composition, we shall not be inclined to undervalue the benefits derived from their journal by members of this profession.

Having served as a monthly editor for two years, in the early days of the "Massachusetts Teacher," and for the same length of time as the resident editor, we feel a personal interest in its reputation, not, however, so much for what we have done for it as for what it has done for us. If it contains no well-digested system of pedagogy, its pages will furnish much material that will be found valuable in the preparation of such a system, if it is ever made.

So much for the past of our State journals. In the wider sphere and increased prosperity and usefulness of the "New England Journal," we shall see a constantly renewed evidence of the good they have accomplished, and rejoice that in fulness of time we were able to take this new departure.

And now the most important thing in connection with it is, that it shall receive the cordial support of the teachers of New England. A first-class journal can be made only on the condition of such support.

"Not every one that saith, etc., but he that *doeth*,"—and the best thing every teacher can do is to become a *paying subscriber*.

PERSONAL.

WE received a few days since a call from Father F. J. De Christo, of Rio Janeiro, who has been in Europe and in this country, giving special attention to educational systems. This gentleman is director of an institution in Rio Janeiro, and being desirous of improving the methods of instruction in Brazil, is making a study of the educational systems in the countries he has visited.

We visited some of our primary and grammar schools with him, and he expressed himself as very much pleased with our methods of instruction and discipline.

The primary schools, especially, gave him much pleasure; and he leaves for home with the intention of reducing primary instruction there to a system as near as possible like ours. Father De Christo would have been glad to take with him a young lady of experience in our primary schools, and acquainted with the Portuguese language, at a good salary. He proposes to visit this country again in 1876, and should he find a few teachers at that time possessing the requisite qualifications, we have no doubt he would offer inducements to spend a few years in Brazil, which would meet a favorable consideration.

We found him to be a very intelligent gentleman, and have no doubt from his ready appreciation of the best in our schools, that he is an excellent teacher.

*ANNUAL MEETING OF THE MASSACHUSETTS
TEACHERS' ASSOCIATION.*

THE thirtieth annual meeting of the Massachusetts Teachers' Association will be held in the High School Building, Walnut Street, Worcester, December 28, 29, and 30, 1874.

Teachers, superintendents, school committees, and all friends of education throughout the State, are cordially invited to attend this meeting and to unite heartily in making it both interesting and profitable. The city of Worcester is accessible from all parts of the State, and its educational atmosphere is conducive to vigorous thought. The time of holding the meeting is favorable as most of the schools are in vacation, and the teachers are free to enjoy this "feast of reason and flow of soul." It is generally understood that in towns whose schools are in session, the committee will readily dismiss the schools if the teachers wish to attend the meeting.

The day sessions will be devoted to the discussion of practical questions of vital importance to the interests of popular education. Persons have been invited to introduce these questions, and it is hoped that every teacher will come prepared to take part in the discussions.

MONDAY, DEC. 28.

At 4.30 P. M., the Directors will hold a meeting in the Library.

At 7 o'clock, the Association will meet in the hall for the opening exercises.

At 7.30, a lecture will be given by Rev. Phillips Brooks, of Boston.

TUESDAY MORNING.

At 9 o'clock, business meeting.

9.30: Discussion, — "Representation of Teachers on School Committees." Introduced by Samuel Eliot, LL. D., of Boston.

10.40: Discussion, introduced by George H. Martin, of Bridgewater, — "Is the memory so trained in our schools as to involve the neglect of the other faculties?"

TUESDAY AFTERNOON.

HIGH SCHOOL SECTION, SAMUEL ELIOT, LL. D., Boston, *President.*

2 o'clock: Discussion, introduced by Dr. Putnam, of Boston, — "The Physical Training of Girls."

3.15: Discussion, introduced by Mr. Peterson, Principal of the Worcester High School, — "What are the proper qualifications for admission to the High School?"

GRAMMAR SCHOOL SECTION, L. F. WARREN, West Newton, *President.*

2 o'clock: Discussion, introduced by E. A. Hubbard, Superintendent of Schools in Fitchburg, — "To what extent should pupils be required to explain their work in Arithmetic?"

3.15: Discussion, introduced by W. E. Eaton, of Charlestown, — "How much technical Grammar should be taught in the Grammar School?"

PRIMARY SCHOOL SECTION, A. P. STONE, Springfield, *President.*

2 o'clock: Discussion, opened by Miss Mary A. Kneil, Principal of the Training School, Springfield, — "Arithmetic in Primary Schools, the amount and kind of work to be done."

3 o'clock: Discussion, — "Truthfulness. How shall correct habits in this respect be cultivated and secured among young children?"

4 o'clock: Discussion, — "Spelling in Primary Schools, with special reference to the kind of words to be spelled, and the method of conducting the exercises."

TUESDAY EVENING.

7.30 o'clock: Lecture on "Massachusetts School Legislation," by Hon. Joseph White, LL. D., Secretary of Massachusetts Board of Education.

WEDNESDAY MORNING.

At 9 o'clock, business meeting.

9.30: Discussion, opened by A. P. Marble, Superintendent of Schools in Worcester, — "What Legislation is necessary to enforce attendance at school?"

10.30: A practical lecture designed "to show by a class of pupils how freedom of movement and beauty of style in Penmanship can be secured in our common schools," by Prof. H. C. Kendall, of Boston.

11.15 o'clock: Discussion, — "What are the proper qualifications for admission to the High School?"

FREE RETURN TICKETS will be furnished to all members of the Association who come to the meeting over the following railroads and their branches, namely, Boston and Albany; Old Colony; Boston and Providence; Boston, Lowell and Nashua; Eastern; Boston and Maine; Fitchburg; Boston, Hartford and Erie; Boston, Clinton and Fitchburg; Framingham and Lowell; Fitchburg and Worcester; Norwich and Worcester; Providence and Worcester; Boston, Barre and Gardner; Worcester and Nashua; Connecticut River; New London; Northern; New Bedford; Vermont and Massachusetts; Ware River; Cape Cod. Winchendon teachers desiring to go to the Convention by way of Fitchburg, can obtain tickets of Cheshire agent, good for passage to Fitchburg and return, at half price, and return tickets to Fitchburg can be obtained at the Convention.

Return tickets may be had upon application to E. B. Young, Corresponding Secretary.

Board can be obtained at the Bay State House, Main Street, at \$3 a day; at the Lincoln House, Elm Street; Waverly House, Front Street; Exchange House, Main Street; Waldo House, Waldo Street, at \$2 a day.

ALBERT G. BOYDEN, *President*,
Bridgewater.

ALFRED BUNKER, *Secretary*.

Boston Highlands, Nov. 1874.

Trains leave Boston for Worcester on Boston and Albany Road at 5, 7, 8.30, 10, 11, A. M.; 1.30, 3, 4.30, 5, 5.30, P. M. Return 7, 8.30, 9.25, 9.45, A. M.; 1.40, 3.25, 4.25, 4.30, 6, 9.55, P. M.

PLYMOUTH COUNTY TEACHERS' ASSOCIATION.

ONE of the pleasantest, most instructive, and in every sense enjoyable meetings of the Association was held in Kingston, Oct. 16 and 17. Surely the people of Kingston must have studied the art of hospitality, and also possess a natural aptitude in that direction.

The exercises were held in the Baptist Church, and consisted of the following papers and debates:—

"Special Preparation by the Teachers," paper by A. G. Boyden. As Mr. Boyden was necessarily in attendance at Cohasset, the paper was read by Miss Woodward.

"Teaching Drawing," by Miss Eliza B. Woodward, of Bridgewater Normal School.

Lecture by Rev. H. N. Hudson, of Cambridge, the eminent Shakespearean editor and critic, on the ways and means of cultivating a proper taste in reading. His method epitomized is only two or three of the best classical authors, but a great deal of them. The lecture elicited many questions which were very kindly and instructively answered by the lecturer.

Paper—"Influence of Parents on Schools," by Rev. John Thomson, of South Abington. The evidence of those who followed seemed to point to a rather general indifference on the part of parents in regard to the behavior and *real* progress of their children in the schools. "Ye committee man" came in for much blame on the part of some, but was ably vindicated, especially by Mr. Thomson, who *knew* whereof he spoke.

The paper on "Arithmetic," by J. G. Knight, of North Abington, was followed by a discussion, or rather a sort of dialogue, which was finally ended by the time for closing.

Friday evening was spent in listening to a reading by Moses T. Brown, of Tufts College.

SATURDAY'S EXERCISES.

Discussion opened in the affirmative by C. W. Wood, Sup't Public Schools, Brockton—"Should text-books be furnished pupils at the public expense?" Most of the speakers who followed doubted its expediency, but Mr. Fullarton, of Woburn, favored it from actual experience of its workings.

Lecture—"What a scholar ought to Remember, what he ought to Forget, and what he ought never to have Learned," by H. F. Harrington, Sup't Public Schools, New Bedford; worthy of the speaker and "just like him." Followed by remarks in the same vein by Mr. Littlefield, Master of the Prescott School, Charlestown.

Lecture—"Teaching Language," by W. E. Eaton, Principal Harvard School, Charlestown, which was well received, was followed by a discussion, which some regretted to have closed by the call to dinner.

Paper—"Something about Primary Schools," by Miss Mary B. White, Principal of New Bedford Training School.

An impromptu on the "Marking System" followed, in which the system found but little favor.

The usual resolutions were adopted.

OFFICERS FOR THE FOLLOWING YEAR.

President—H. G. Goodrich, of Hingham.

Vice-President—C. E. Ridler, of Kingston, W. T. Copeland, of Brockton, A. H. Cornish, of Plymouth.

Secretary and Treasurer—J. G. Knight, of North Abington.

Executive Committee—A. G. Boyden, of Bridgewater, W. C. Fickett, of East Bridgewater, J. W. McDonald, of South Abington. K.

NEW YORK STATE NORMAL TEACHERS' ASSOCIATION.

THE New York State Normal Teachers' Association held their annual meeting for 1874 at Westfield, Mass.

Eight normal principals were present. The sessions continued for three days, and among the questions discussed was one pertaining to the use of

text-books in school ; one concerning a five years' course of study for common schools, and one concerning methods of teaching in the normal schools.

The questions were ably discussed, and some valuable knowledge to the normal teacher obtained. The Association expressed themselves to be much pleased with the Westfield Normal School, and with Westfield. The Association adjourned to meet in May next, at Potsdam, New York.

DECEMBER.

THE snow lies on the frozen ground,
And, glittering in its beauty pale,
It covers hill, it covers dale, —
It mantles everything around.
It decks the tops of leafless trees,
And silvers sweetly in the light ; —
It whitens in the starry night,
And gently follows on the breeze.
The icy King has left his hall,
And, sprinkling from his bounteous hand
His crystal offerings o'er the land,
They glisten everywhere they fall.
The ground is hard and wintry white ;
The creaking wheels go slowly by,
Like aching hearts that live to sigh,
And sighing, live from morn till night.
Across the road and down the lane
Ring happy voices sounding near,
Midst tinkling bells that greet the ear,
Whilst echo catches up the strain.
December fills the frosty air,
And follows on the chill night wind ; —
Its finger-tracing do we find
O'er hill and dale and everywhere.
And such is life ; — our lots are cast
Midst hopes and joys, through smiles and tears,
'Neath changeful skies, perhaps for years,
Till bleak December comes at last.

M. G. A. T.

MEETING OF SUPERINTENDENTS.

THE New England Association of School Superintendents held its semi-annual meeting in the City Hall, Boston, on Friday, Nov. 20.

The attendance was unusually large, and the topics discussed elicited much interest. These meetings are conducted with the least formality possible, which gives them the peculiar interest of an animated conversation. One essay was read by Prof. Tweed on "Principles and Methods," which gave rise, not so much to a discussion as to an amplification of the ideas advanced in the paper.

Another topic discussed was that of "Written Examinations." Considerable difference of opinion existed as to the value of these examinations as tests for promotion, though frequent written recitations were approved by all. In the afternoon, the discussion was mainly upon "Programmes of Study." It seemed to be admitted that our programme at present is not satisfactory, either with reference to the time given to the various studies, or to the extent to which the studies shall be carried in the several grades. Perhaps the greatest difficulty in arranging a programme for our grammar schools arises from the different interests to be consulted.

The leading object seems usually to be to prepare pupils for the high school, and the character of a grammar school is supposed to be shown by the number and standing of pupils who enter the high school. But only a small per cent of those who enter the grammar school ever reach even the second class, and of those who complete the grammar-school course, a large portion never enter the high school.

It seems necessary, therefore, that the programme should have a certain practical completeness: 1st, for those who fall out by the way; 2d, for those who take only the grammar-school course, and then should furnish a suitable preparatory course for those who enter the high school. Whoever can reconcile those various and often conflicting interests in a grammar-school programme will render a service which has not yet been done. The discussion of this topic showed that it is a problem upon which nearly every superintendent is earnestly engaged.

The meeting was, upon the whole, one of the most interesting and profitable we have ever attended.

This being the first meeting of the Association since the resignation of Hon. J. D. Philbrick as Superintendent of Schools in Boston, the following resolutions, introduced by A. P. Marble, Esq., of Worcester, were unanimously adopted:—

Resolved, That we have noticed with regret the resignation of our associate, Hon. John D. Philbrick, Superintendent of Schools, Boston. For more than thirty years he has been prominent as an educator; upon every grade of school in New England he has impressed his influence; this extended experience and a wide field of observation have rendered him an authority on this subject of public schools; and his name throughout the world is indissolubly linked with common-school education.

Resolved, That this capacity for judicious, discriminating work — so much needed where empiricism is so rife and so disastrous — should not be lost ; and we confidently anticipate seeing him, when his health is restored, so long as life remains, occupying those eminent positions for which his ability and the experience of his life have so admirably fitted him.

"THE NATIONAL TEACHERS' ASSOCIATION."

THE doings of the National Teachers' Association at Detroit have been published in a volume similar to those of preceding years, but larger, and may be obtained of the Secretary, A. P. Marble, of Worcester. The volume contains the lectures, with a very full report of the debates to which they gave rise, and all the proceedings of the Association of interest to educators.

We feel sure that every teacher who was present at the meeting of the Association will place a copy of the proceedings in his library ; and for those who were not there, it ought to be enough to say that nearly all the great questions of educational interest were very fully and ably discussed. It is the most valuable contribution to our pedagogical literature made during the year. Indeed, it is a summary of the most advanced thought in educational matters. Buy it.

"SCHOOL SCIENTIFIC SOCIETIES."

LENOX, MASS., NOV. 15, 1874.

DEAR SIR : — The idea suggested in the November number of your paper, by L. F. Pourtalès, seems to me to be important and timely. So forcibly have the advantages of a system of "School Scientific Societies" impressed themselves upon my mind since reading the above-mentioned article that I have at once adopted the plan in the Lenox High School, which is under my charge. Our organization consists at present of about twenty members, and it is proposed as an experiment to devote the last hour of every alternate Friday afternoon to a meeting to be held in the school-room in the hearing of the whole school. It is thought that this may arouse a wider interest in the subjects to be studied.

A special department is chosen by or for each member, and it is expected that at each meeting each member, or each alternate member, of the society will read a report of the observations made during the preceding fortnight.

As illustrative of our work : One member has it for his duty to note the times of snowfalls, and the depth in inches of each fall ; another notes the direction and velocity of the winds ; another the indications of the thermometer ; and another the shapes of snow crystals, illustrated by drawings and accompanied by a report of the state of the thermometer at the time of making the observation. We feel confident that we shall be repaid for our pains, even if we have to depend entirely upon ourselves, in the habits of careful obser-

vation and study we must acquire, and in the knowledge of natural phenomena which must be gained.

If, however, other schools shall adopt Mr. Pourtalès' suggestions, and shall form similar societies, we feel that, by correspondence and mutual interchange of data and specimens, the advantages of the proposed system will be more than doubled.

We shall of course vary our objects of research as the varying seasons suggest.

We have adopted as a temporary name, "LENOX HIGH SCHOOL SCIENTIFIC SOCIETY"; but if other societies shall be formed, we shall wish to correspond with them in regard to choosing a *general name*, which may apply to all, and be permanent; and also with regard to preparing a common constitution.

Hoping to hear soon from other schools,

I am yours, respectfully,

HARLAN H. BALLARD,

Principal of Lenox High School.

To Editor "MASSACHUSETTS TEACHER."

THE "New York Tribune," commenting on the fact that the teachers of that city do not receive the social recognition to which they are entitled, says:—

"This disesteem which seriously harms the profession, and, reacting through the school system, those also who feel it has its actual foundation in money. First, if least important, among its causes is the characteristic American liking for that comfortable possession, and equally characteristic disregard of the people who have none. Then comes in the question of cultivation. With little or no prospect of advancement in the profession, and with starvation salaries in almost every branch of it, there are great numbers of teachers who are not brave enough and not strong enough to endure the strain of reaching a fine and graceful culture.

"They cannot rightfully be blamed for this,—they are permitted to fight only for daily bread and a few clothes;—but what leisure or what incentive have they for the winning of more? Speaking in the gentlest way, it must be said that teaching in this country is the subject of the most short-sighted injustice. It is outrageous that a profession, which in its noble and imperative work touches the mark with theology and medicine, should give to its cleverest members little more than the poor necessities of life; should offer them no hope of an old age made comfortable by the work of their prime. It is the absolute truth that the salaries paid to public school teachers are as small as in any sort of human decency can be given. Public money is spent lavishly on many a popular folly,—we are generous in building magnificent school-houses, but when changes are made in the starveling salaries of teachers, they are often in a downward direction.

"One consequence is that men of lively and original mind who happen to

step into the profession use it merely as one round of life's ladder, and climb out of it as soon as possible. Of those who stay in it, many a one beginning with good natural aptitude is shaped in the struggle with constant hard times into the prejudiced and thoroughly conservative pedagogue who is not the least bane of our school system. Without much leisure to use the means of intellectual expansion, and without money to purchase them, he becomes a teacher by rote; his poverty first, and then his will, consents to a routine without freshness and inspiration. The faults of our system are many and grievous, as an almost unanimous complaint attests; and half of these faults are directly traceable to the positive ignorance and indifference of teachers.

"Instead of severely censuring them, however, it might be as well to distribute the blame, not leaving out niggardly and thoughtless school boards and committees. We have no possible commendation for incompetent teachers, but it must be said that they give as much as their salaries rightly call for. In advocating worthier remuneration we do not mean to offer premiums to incompetency. We want better teachers; a larger and more rigid preparation for the profession; higher standards of admission; and, best of all, the enthusiastic devotion of proficient. We urge that salaries should be large enough to invite men and women of proper capacities to the work; and that the requirements should be so severe as to exclude all incapables. When these needs are met, the *morale* of the profession will instantly rise, and the profession itself will take its own deserved place in social esteem.

COMPLIMENT TO AN AMERICAN ELOCUTIONIST.—We notice that the "Sixth Reader" of a series recently published in London called the "Royal Readers," contains an elocutionary introduction by Prof. Lewis B. Monroe, Dean of the Boston University School of Oratory.

Books.

MANUAL OF MYTHOLOGY; Greek and Roman, Norse and Old German, Hindoo and Egyptian Mythology. By Alexander S. Murray. With forty-five Plates. Published by Scribner, Armstrong & Co.

This truly elegant book should find a place in the library of every student, and of every one who wishes to understand the constantly-recurring allusions in our best literature. The myths, like the languages of the various Aryan nations, all have a family resemblance, making a common origin; and in the Veda, the earliest record of the Sanskrit language, many of the myths common to these nations are presented in their simplest form.

There is something intensely interesting in the study of the myths of a nation. They are the germs of national characteristics. They constitute, in fact, the religious history of a nation. The form, indeed, may be and is outgrown, but the elements of truth contained in them reappear in a more rational spiritualism.

Even the old forms are retained in the literature of nations, and the purpose which they serve of illustration and ornament furnishes the best evidence that they contained the germs of many of the highest truths. Until science stops us short at "matter" and "force," and forbids us to look back of them for intelligence, we can never cease to be of interest as indicating primitive religious ideas; and even then they must keep their place in poetry. To those who have examined the first edition, it is only necessary to say that the author has made large additions, which render it worthy to take rank as a standard text-book. The illustrations are beautiful.

THE EXHIBITION DRAMA; For Private Theatricals, Home Representations, Holiday and School Exhibitions. By G. M. Baker. Published by Lee & Shepard.

Mr. Baker's work in this department is too well known to require more than a simple announcement of this book. Those who have used the previous volumes of the series will not fail to use this.

THE AMERICAN SCHOOL MUSIC READER. A Systematically Graded Course of Instruction in Music for Public Schools. First, Second, and Third Books. By L. O. Emerson and W. S. Tilden. Published by Oliver Ditson.

The First Book is adapted to the three years' course in the primary school, the Second and Third Books to grammar and high schools. The exercises seem to be well graded, and interspersed with pleasant airs, which will make the series a favorite with pupils. By the use of these and similar books in the public schools of the State, pupils will acquire about the same facility in reading music as in reading language.

THE SONG FOUNTAIN. A Vocal Music Book for School and Family Use. By Wm. Tillingham and D. P. Horton. Published by J. W. Schermerhorn.

This is intended for classes in our grammar and high schools to "give readiness in singing at sight, a proper vocal development, and a tasteful and appropriate style in musical performance." It is enough to say that it is well adapted to secure these results.

THE ELEMENTS OF PHYSICS. A Text-Book for Academies and Common Schools. By Sidney A. Norton. Published by Wilson, Hinkle & Co.

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